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THE TREATMENT OF HIP-JOINT DISEASE BY THE PHYSIOLOGICAL METHOD OF EXTENSION.

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Read before the Philadelphia Academy of Surgery, April 4, 1881.

THE object of this paper is merely to describe a plan for the mechanical treatment of morbus coxarius which I believe is more simple, effective and agreeable to the patient than the methods ordinarily employed.

While it is unnecessary, before this Society of experienced surgeons, to call attention to the symptomatology of hip-joint disease, I desire to refer to one symptom, viz., *fixation of the joint.* And this I do for the reason that it bears an important relation to the treatment which I propose to submit for your consideration this evening, and also because it is one of the most characteristic symptoms of the disease. Fixation of the diseased joint to a greater or less degree is a symptom which has not always been duly appreciated. Some of the best surgical text-books have omitted to mention it; and yet I will venture to say that there is not an experienced surgeon present who has not observed it as an early symptom of hip-disease. Muscular rigidity may not be sufficient at first to arrest motion in the joint, and it may be overlooked by a careless observer, but as the disease advances this rigidity generally increases, until the arrest of mobility becomes complete and is recognized by all.

Barwell ("Diseases of the Joints") enumerates "more or less immobility" among the symptoms of the first stage of hip-disease, the immobility increasing as the disease progresses.

Professor A. C. Post,* in describing the symptoms of the second stage of morbus coxarius, says, "The joint seems often in this stage to be anchylosed: the rigidity, however, is the result simply of muscular contraction. The division of the muscles which surround the hip-joint, or the evacuation of the fluid contained in the capsule, will remove this rigidity, which seems to constitute the anchylosis."

Bauer,† in calling attention to some "symptoms" of morbus coxarius "of great importance," says, "*The immobility of the affected joint* is so complete that scarcely the slightest movement can be effected." On p. 265 of his "Orthopædic Surgery," he says, "The mobility of the joint may be impeded or entirely suspended;" and on p. 269, "The joint, being more or less tender, is well taken care of by the patient and protected against incidental injuries: one of the means of doing this is the voluntary effort of the muscles to keep the joint at rest."

Sayre says,‡ "In the first stage very limited motion can be made at the joint. Abduction, adduction, and rotation are limited, and when carried beyond a certain point the pelvis at once moves with the limb, giving the patient an appearance as if complete anchylosis had taken place at the hip-joint. But there is no real anchylosis present in this stage of the disease. There is anchylosis perfect and complete to all *appearance*, but it is due simply to muscular rigidity. . . . The immobility which is present in the second stage, resulting from over-distention of the capsule and muscular rigidity, is usually well marked. *If left to itself, the rest which is so essential to the joint is procured by the firm muscular contraction which prevents motion, and this is so perfect, in many instances, as to assume the appearance of genuine bony anchylosis.*"

Dr. Shaffer§ says that "persistent reflex muscular spasm is an invariable symptom of chronic osteitis of the hip-joint. . . . This muscular spasm increases, as a rule, with the limp; but many months, or even years, may pass before it reaches the point where *all movement of the joint is arrested*, and cases may occur where the spasm simulates *actual anchylosis.*"

Immobility of the joint is both voluntary and involuntary. It is not due merely (1) to reflex contraction of the peri-articular muscles, because it continues also during sleep, when all voluntary action is suspended, but likewise (2) to intra-capsular effusion, which produces not only immobility of the joint, but various distortions of the limb as well, as has been proved by the well-known experiments of Prof. Weber, of Bonn, which consisted in

* American Medical Times, vol. ii. p. 278.

† New York Journal of Medicine, vol. ii., N. S., p. 162.
‡ Lectures on Orthopædic Surgery, p. 238 *et seq.*
§ The Hysterical Element in Orthopædic Surgery, pp. 24, 35, 36.

injecting the normal cotyloid cavity with water; and (3) to the voluntary effort of the patient to keep the joint at rest, because the slightest movement develops pain, and, moreover, if he is induced to execute a movement it will be seen that it is not the hip-joint that moves, but the whole pelvis at its lumbar articulation.

Rigidity of the joint is best shown by undressing the patient and placing him upon his back on a firm flat surface. The sound limb is flexed so as to place the knee in contact with the chest, when the spinous processes of the vertebræ and the back of the pelvis will lie flat upon the table: while the sound limb is held in this position, the suspected limb becomes more or less bent at the knee, and the popliteal space cannot be brought to the table by the efforts of the patient. When the sound limb is released from its flexed position and the patient directed to extend the diseased limb so as to bring the popliteal space down to the table, the pelvis is tilted and the lumbar vertebræ curved so that the hand can be placed between the child's back and the table.

This examination can be made without giving the patient pain, and it enables the surgeon to determine with great certainty the presence of hip-joint disease, even in the very early stage; indeed, I may say, with quite as much certainty as at a later period. I dwell with some emphasis on this diagnostic point, believing as I do that it has not received the attention that it merits, and all the more because an early recognition of the disease is extremely important.

I do not wish to be understood as asserting that fixation of the joint by reflex muscular contraction is pathognomonic of hip-joint disease, for this condition often exists in hysterical joint-affections to such a degree as to simulate true anchylosis. But a careful observer will be able to distinguish the real from the mimic. In hip-disease the rigidity is persistent and unvarying night and day, and cannot be overcome when the patient's mind is diverted. In hysterical joint-affections the muscular contraction varies, and can be subdued by gentle, persistent efforts to flex and extend the limb when the patient's attention is drawn away, and it disappears during sleep. Various emotional phenomena are also observed in this class of cases, so that a little clever management will enable the surgeon to recognize the hysterical element. In doubtful cases we may be aided by the use of the faradic current, as suggested by Shaffer. In the true muscular spasm of joint-disease the faradic reaction of the muscles is diminished, whereas in hysterical conditions of the joints the muscles respond normally to the faradic current. This is, I think, a valuable suggestion.

Increased temperature of the part, which is one of the most characteristic symptoms of inflammation in most of the joints, cannot, unfortunately, be relied upon in the case of the hip-joint, which is situated so deeply that an abnormal temperature cannot in all cases be recognized by the surface-thermometer.

In the treatment of hip-disease we direct our attention to the relief of pain and the prevention of deformity. By the methods used to accomplish these indications we control the disease, or rather we put the patient in the best possible condition for getting well: we remove as much as possible the *morbi causa*. We do not cure the disease, but we may remove the condition which keeps up and aggravates the morbid irritation, which, while continuing, prevents any real improvement. *What is the cause of the pain* about the hip- and knee-joints, which in many cases is entirely located at the latter joint? This inquiry seems to be especially pertinent because clinical observations teach us that the severity and duration of the disease are in proportion to the degree of pain the patient experiences, and recovery takes place *pari passu* with the diminution of the pain. And whatever increases the pain, as a general rule, increases also the articular disease. Therefore it is important to ascertain the cause of the pain, and to remove it if possible, in order that the patient may be put in a condition favorable for recovery. A certain amount of pain is caused by the distended vessels pressing upon the nerves involved in the inflammation: this is true in all inflammations, but it is especially so in unyielding textures, such as enter into the structure of the hip-joint; and when we consider the close relationship of the nerve-trunks both to the hip- and the knee-joint, the anterior crural sending a branch to the hip-joint and the obturator contributing a branch to the capsular and round ligaments, and also to the inte-

rior of the knee-joint and the inner side of it, it is not surprising that they should suffer when inflammation exists in the hip-joint. But the most important influence by far in the production of pain is the violent spasmodic contraction of the muscles which press together the inflamed and sensitive surfaces of the head of the femur and the acetabulum. This is shown by the prompt relief from the most acute suffering which is at once afforded by simply taking hold of the ankle and extending the leg forcibly but gently, or by applying the weight and pulley, or by placing the patient upon a high shoe and crutches, extension being made by the weight of the leg. The portative apparatus of Davis, and its numerous modifications by others, designed to produce extension as well as to fulfil other indications, show the importance their designers or modifiers attach to overcoming muscular contraction in order to relieve pain. And, notwithstanding Barwell ascribes the pain to other causes as well, the much greater importance which he attaches to muscular contraction as a causative agent is indicated by his repeated statements that while the sharp pains continue there is constant muscular contraction, pressing the bones together, which is proportionate to the continuous wearing pain which is usually referred to the knee.

Extension, both for the purpose of subduing abnormal contraction of the muscles and for correcting the malposition of the limb, may be regarded as a *sine qua non* in the treatment of hip-joint disease. So far as I know, extension as a *curative agent* in the treatment of morbus coxarius was first used by the late Dr. William Harris, of Philadelphia, and in 1839 he published an account of three cases, two of which were treated by such an apparatus as was used in the treatment of fractures of the thigh in the straight position, and one with Hagedorn's splint. For many years previously, extension and counter-extension had been used for the purpose of overcoming deformity after the disease had subsided, but not for the purpose of relieving pain and controlling the morbid condition. The suggestion of Harris seems to have been forgotten, and for a long time we heard but little said of mechanical extension, except for removing deformity. At the present time the importance of extension as a means of curing morbus coxarius, as well as for preventing and overcoming deformities, is almost universally recognized. This is shown by the number and variety of appliances which have been devised to satisfy this indication.

Does extension accomplish anything more than the relief of reflex muscular contraction and its consequences, and the prevention or correction of deformity?

It has been claimed by respectable authorities that we can by extension separate the head of the femur from the acetabulum; but it has been demonstrated by the well-known experiments of Barwell, made on healthy subjects, recently repeated by Bradford, of Boston,* that the bones cannot be separated to an appreciable extent by any amount of extension that can be applied, even when all the muscles and the capsular ligament itself have been divided. Weber affirms† that the head of the femur in its normal condition is held firmly in place by atmospheric pressure, while Barwell maintains that it is kept in place by what he calls the "cohesive contact" which takes place between the joint-surfaces. The question must still be regarded as under judgment; but I incline to the opinion of Barwell, that extension affords relief by preventing the diseased surfaces from being violently jammed together, and not by separating the head of the femur from the acetabulum.

In the treatment of hip-joint disease, the essential indications are, in addition to improving the patient's general health by judicious medication and proper hygienic influences, (1) that there shall be sufficient *immobility* of the joint to prevent the injurious effects of the motion and consequent friction of the inflamed surfaces; the immobilization of other joints when inflamed is considered an essential part of the treatment, and, with due respect to the opinions of some very high authorities, I can see no reason why the hip-joint should form an exception to this surgical axiom; (2) to overcome muscular spasm, and to obviate and correct deformity by means of *extension;* (3) to remove the weight of the body from the joint, and to provide means for enabling the patient to take open-air exercise with comfort and safety.

The method which I have found most satisfactory and comfortable both to my-

* Boston Medical and Surgical Journal, November, 1880.
† Müller's Archives, 1836, p. 54.

self and to my patients I have designated in another place "the physiological method,"* and I must still claim the privilege of using the word "method," notwithstanding I have been sharply criticised by a respectable reviewer for having done so. The plan consists in placing upon the foot of the sound side the shoe ordinarily used for shortened leg (which should be high enough to prevent the toes of the diseased side from touching the ground), and putting the patient upon a pair of crutches. By these simple appliances all the indications are fulfilled for the successful treatment of morbus coxarius and *the prevention of deformities*, which are sure to occur unless obviated by appropriate means.

Immobility sufficient to prevent injurious motion and friction is obtained, as we have already seen, by nature's expedients,—chiefly the reflex contraction of the peri-articular muscles, aided by intra-capsular effusion and the voluntary efforts of the patient to keep the joint at rest, in order to avoid pain. Nature fixes the joint more satisfactorily and in a kindlier way than we can by our most ingenious appliances.

Extension is made by the weight of the suspended diseased limb, which is equal to one-fifth of the weight of the entire body, and is sufficient to overcome the muscular spasm which increases the pain and perpetuates the disease by jamming together the inflamed surfaces. The extension obtained by the limb of a child weighing, for example, sixty pounds would be twelve pounds and a half, which is more than can be borne when the case is treated in bed by the ordinary weight and pulley. Extension produced by the weight of the limb is efficient, and at the same time more grateful to the diseased parts, because it is less arbitrary and constraining, and therefore excites less reflex resistance than any method I had previously employed. The muscles are persuaded, so to speak, to relax, instead of being compelled to yield by force, which irritates and stimulates them to resistance and spasm. Kindly treatment is often more effective than compulsion in accomplishing our purposes; and this is true as well in physic as in morals. There is a certain instinctive unconscious recoil in the mind of every patient, young and old, against all the various devices of constraint or imprisonment which a splint or apparatus implies.

Muscular rigidity should not be confounded with muscular spasm. The former may exist to such a degree as to produce apparent anchylosis, and yet the patient experiences no pain, but when reflex spasm takes place violent pain is developed. Extension gives relief not by overcoming *completely* the muscular rigidity,—this would not be desirable, because too much motion would then be permitted in the joint,—but by stretching the contracted muscle sufficiently to prevent the development of reflex spasm.

The patient should walk or stand upon the crutches three or four hours every day; and there is no difficulty in inducing him to do this when he has learned that by suspending the limb he is relieved from pain. The use of the crutches for three or four hours daily appears to relax the muscular rigidity sufficiently to prevent the recurrence of the reflex pain at night. Why this should be accomplished more efficiently when extension is made by the weight of the limb unencumbered by the rigid appliances ordinarily used, which do not produce extension as is claimed by their respective authors, the extension which they are supposed to make being made merely by the weight of the limb, is easily explained. The unyielding iron apparatus and the perineal band irritate the muscles and worry the patient, so that muscular spasm is not so completely over-

* Contributions to Orthopædic Surgery, Putnams, 1880.

come as when extension is made without their use. It is a delusion to suppose that they add in the slightest degree to the force of the extension; and, if they did augment the extension, it would be unnecessary, for the weight of the limb gives all the extension that is required.

The objection to the extension splint of Davis and its various modifications, that the extension strap slackens or the instrument bends in walking, so that all extension is lost, is said to have been remedied by a splint devised by Shaffer, of New York. But if, as I maintain, the weight of the limb gives all the extension necessary, why should we encumber our patients with irksome appliances, however well they may accomplish their designs, which require the unremitting vigilance of the surgeon to maintain their efficiency and to prevent excoriations? The portative appliances in ordinary use are designed to accomplish diverse indications, and may be divided into two classes. The first, represented by the apparatus of Davis and its modifications, is intended to combine *motion of the joint with extension;* while the purpose of the instruments of Bauer, Barwell, Andrews, and others, is to secure *immobility of the joint with extension.* Now, with all due respect for the surgical skill and ingenuity of these respective gentlemen, I am convinced that neither class of appliances accomplished the objects claimed for them. A close observer will notice that a patient who wears an instrument belonging to either class swings the whole pelvis as he walks; and this is due to the movement which takes place between the sacro-lumbar articulations; but there is no motion at the hip-joint. A kind and overruling Providence compels immobilization of the joint in spite of the efforts of the surgeon to prevent it.

That the instruments of the second class do not fix the joint must be evident when we consider that they only extend upward an inch or two above the joint, and no instrument can control the movements of the joint which does not extend a considerable distance above (as high as the thorax) as well as below the articulation. There is manifestly a disproportion between the object to be attained and the power applied to attain it. No surgeon would expect to fix the knee- or elbow-joint by splints unless they were carried both above and below the joints for some distance.

If the appliances referred to are wholly inefficient to accomplish what is claimed for them, and are deceptive as to the manner in which results are obtained, how do we explain the fact, it may be asked, that so much improvement has been reported from them, when compared with others not having their features? These favorable results may be accounted for by the fact that the use of portative instruments has liberated patients from confinement within-doors, and enabled them to enjoy the benefits of open-air exercise, instead of being treated in bed as was formerly done, and also because *the principal indications—immobility and extension—are obtained independently of the apparatus used, by the reflex contraction of the muscles which surround the hip, and by the weight of the limb.*

These appliances have done good service in the cause of humanity, and are creditable to surgical ingenuity; but I am sure we can accomplish results equally satisfactory by simpler and less irksome expedients.

It has been objected to the physiological method of extension that unless the children are watched constantly they may lay aside their crutches and bear the weight of the body upon the limb. This I have known to occur; but when they suffer pain from this cause they are not likely to repeat the experiment, for even very young children soon learn that suspending the limb gives relief. The remedy for the pain is in their own hands, and they readily apply it with the co-operation of the parent. But the same objection exists to other appliances. Every surgeon knows that when he applies any of the ordinary splints he is sure to find it relaxed the following day, on account of the pain and irritation they produce, and it requires the constant supervision of professional skill to keep it properly adjusted: it cannot be left to the care of the nurse or parent. And the same objection can be made to the weight and pulley. If the hospital ward is visited at a late hour of the night, we will often find patients who have the weight and pulley applied lying on their sides with the diseased limb flexed, so that extension is made from the knee instead of the hip.

Another objection which has been urged to physiological extension is that it is efficient only when the patient is in the erect position. Abundant experience has shown that the weight of the limb acting upon

the peri-articular muscles gently, without irritating them, for three or four hours daily, is sufficient to overcome the tendency to spasm of those muscles, as already stated, to such a degree that the joint-surfaces are not jammed together by muscular spasm. Why this should be so when extension is made without apparatus, while we get the same amount of extension with apparatus and by the same means, viz., the weight of the limb, has already been explained. The point is that the physiological extension is made without irritating the parts or stimulating the muscles to resistance, and therefore the spasm is more completely overcome.

It has also been objected that the plan of treatment herein advised does not prevent the deformities which are so liable to occur in hip-disease.

Deformities the result of muscular contraction can only be prevented by overcoming such contraction; and no plan to accomplish this has been suggested except that of extension in one way or another, or myotomy. The simplest and least inconvenient method of producing extension is by suspending the limb; and this produces as much extension as can be borne as a rule, or as can be made by more complicated expedients, and is, therefore, to say the least, quite as efficient in preventing and overcoming deformity as any other method. Even with the weight and pulley applied in bed, more weight cannot be borne than that of the suspended leg itself. It has been said that as the powerful muscles which control the hip-joint lift and swing the parts below, they cannot be extended merely by the weight of the limb. This I am sure is an error, for it is the abnormal contraction of these muscles, the approximation of their points of origin and insertion, that is to be overcome by the weight of the limb. The same objection would apply to extension made by a weight applied with the patient in bed. In the one case, as in the other, the leg is supported and held in contact with the body by the strong peri-articular muscles, whose abnormal contraction must be overcome by extension. Since I began to use this method I have not found in any case a necessity for using any other method of extension as a *curative agent*, even at night, than the weight of the limb, except when the patient was too young or too feeble to use crutches, and in the comparatively rare cases of acute articular coxalgia attended with great constitutional disturbance, compelling the patient to keep his bed. The latter class of cases can only be treated with the long splint or the weight and pulley, the former with Darrach's wheeled crutch or the ordinary go-cart, which permit open-air exercise, in conjunction with the elevated shoe. I have, however, learned that other surgeons have found that the weight of the limb was not sufficient in exceptional cases to prevent the muscular contraction incident to the disease; and this may be my experience in the future. These cases were not, however, treated subsequently by the portative extension splint, but by the weight and pulley, necessitating the confinement of the patient to bed.

In cases of deformity from muscular contraction, a result of the neglect of proper early treatment, weight extension may be used with advantage: it enables us sooner to overcome the flexions of the limb. In such cases, weighting the heel of the shoe on the diseased side, when increased extension can be borne, also hastens the removal of the deformity.

Neither have I found it necessary in any case to fix the joint more completely than is accomplished by the reflex contraction of the peri-articular muscles, the intra-capsular effusion, and the voluntary effort of the patient to keep the joint quiet. Nature secures all the immobility required in such cases better and more gratefully to the patient than the most ingenious appliances that art can suggest.

I am aware that this paper contains no facts or suggestions which I have not previously presented to the profession, and I should not have presumed to occupy the time of your Society this evening had I not been solicited to do so by two of your most distinguished members, and on them I must throw the responsibility for my persistence in trying to awaken here an interest in a plan for the treatment of morbus coxarius which seems to me to be entitled to consideration. I was, moreover, gratified to have the opportunity to emphasize certain positions expressed in my former papers, to say that a more extended experience induces me still to adhere to the main points of my early argument, notwithstanding it has received the compliment of adverse criticism on the part of some of my reviewers, and also to say that,

although relatively a stranger to many of you, I ask no quarter, but cordially invite candid and independent discussion of the views I have expressed in this paper, to the end that we may, aided by your knowledge, skill, and experience, leave the rational treatment of morbus coxarius better understood than we found it.

Thanking you, gentlemen, for your courtesy and attention, I commit the subject to your hands.

SOME OBSERVATIONS ON THE CARLSBAD TREATMENT.

*Read before the Philadelphia County Medical Society, January 26, 1881,**

BY E. T. BRUEN, M.D.

IN common with many of those I address this evening, I have used with much good effect in selected cases the Carlsbad salt. It is needful only to remind this body of the more powerful physiological action of certain drugs when administered in dilute solution, to explain the advantages of these prepared salts. One of the most original applications of the above facts to the treatment of disease will be found in a paper by Dr. John Guitéras in the *Philadelphia Medical Times* for June 5, 1880, entitled "The Therapeutic Advantages of Administering the Iodide of Potassium Fasting, with Some Remarks on Interstitial Hepatitis with Enlargement of the Liver." In this paper is discussed the advantage of administering alterative drugs in dilute solution while fasting, and the opinion is expressed that the physiological action of the drug is much intensified. I can confidently corroborate the statements of Dr. Guitéras, and as, during a recent visit to Europe, I spent some time at a number of Baths, including Carlsbad, I will offer the results of my notes: these comprise the varieties of cases I found in the habit of visiting Carlsbad, the benefit derived, the action of the waters, and the after-treatment advised by the local physicians. It must be borne in mind that the Carlsbad salts do not represent the waters as they issue from the laboratory of nature. The Carlsbad salt is merely, after all, Glauber's salt: the true waters contain, in addition, carbonate of sodium 13 grains, sulphate of sodium 20 grains, to the pint, besides a fair amount of chloride of sodium, some carbonate of lime and magnesium, with free carbonic acid, at a varying temperature from 122° Fahr. to 166° Fahr. I am inclined to think that those who consult the books published by the resident physicians at the German baths will find them to yield information comparable to the Yankee's definition of a flea, viz., "A critter which, when you put your finger on it, warn't there." However, in a recent book† by Dr. J. Kraus the reader will find a good analysis of the waters, some facts as to the climatology of the place, and, included in a letter from an ex-patient, many useful hints are given as to the method of life, the dietary most suitable, the personal hygiene, and the best route to follow in a journey to Carlsbad.

The cases resorting to Carlsbad may be divided into three classes: 1. Cases of enlargement of the liver and spleen, as a sequence to repeated congestions induced by continued dyspepsia or chronic malaria, interstitial hepatitis, or primary stage of cirrhosis, especially when jaundice and deficient intestinal digestion persist, and also cases of chronic indigestion with deficient assimilation, whether or not constipation be a prominent symptom. 2. Cases of chronic rheumatism or gout. 3. Cases of the gouty state, or those obscure cases attended with renal congestion or inactivity, as evidenced by the passage of a deficient amount of urine of low specific gravity, usually associated with deficient vaso-motor tonus. These cases are subject to transient attacks of headache or hysterical nervousness. These cases, as I shall show later, are often much benefited, some cured, by a course of the waters. The springs differ from each other chiefly in temperature, which is high where it issues from the source, ranging from 166° Fahr. to 122° Fahr., and in the amount of carbonic acid contained in them. It is usual for patients to rise about six o'clock and to spend about two hours at the spring, taking at fifteen minutes' interval three or four ounces of the water. Beginners usually indulge in from twelve to sixteen ounces a day; the amount is often carried up to twenty-four or thirty ounces. Exercise is taken while drinking the waters, and then resort is had to the hotel. Later I shall observe that a strict diet is fundamental to the success of "the

* The discussion on this paper will be found in the *Medical Times* for April 23.

† Carlsbad: Its Natural Healing Agents.

cure:" the diet consists of a light breakfast of eggs, bread, and coffee; at noon, meat (steak or chicken) constitutes the meal; in the evening the same meal is repeated. No one under the "cure" will venture on a *table-d'hôte*, or even a more liberal meal, but this strict regimen is possible, since every one eats at one of the numerous restaurants, one of the features of the place. Early hours and moderate exercise are especially enjoined. Now as to the effects produced. Most persons experience a laxative action, not a purgative effect; but I have known other cases in which the compound liquorice powder was used daily to produce movements of the bowels. Without exception, individuals experience the most profound exhaustion, and usually profound anæmia ensues. In most cases the urine is notably increased in amount, and at times is of a blackish-green color. The stools are often greenish, doubtless owing to the increased secretion of bile; in the urine the color is perhaps due to the destruction of the red blood-corpuscles. For it would seem that the alterative effect of the waters is so great as to make the systemic condition resemble that induced by too generous use of the potassium salts. Patients have frequently said to me, "Doctor, I cannot endure this treatment; it is too reducing; my strength is ebbing away." Notwithstanding this, the treatment is continued for three weeks or a month, the period of the "cure," and the patient is despatched to Ischl, St. Moritz, or some other springs the waters of which contain iron, and thus the blood-crasis is restored. In persons weakened by previous long sickness, recuperation is very slow after a Carlsbad course: indeed, it appeared to me that the treatment is pushed too far with these cases. Sir Henry Thompson has said* that he is quite as well satisfied with a smaller amount, "say six to eight ounces given daily during six or nine weeks, instead of the usual three weeks of the foreign course." I incline to think that the restricted diet contributes very much to the favorable result usually attained.

To illustrate: alcohol, or any fermented liquor, is to be used in its most dilute and purest form, or relinquished altogether; sugar, fatty matters, butter, cream, fat of meat, are proscribed; the fruits are not allowed, and vegetables and good fish are unattainable. In serious cases, a repetition of the course every three or four months is found advantageous, provided the patient's strength at all permit: too much must not be hoped for from a single course. The effect of the salts of potash, when administered continuously, is to increase the oxidation of the tissues, and anæmia is brought about.† Apparently the same effect can be brought about by the salts contained in these waters.

Let me now append the outline of the history of two cases which I had the opportunity to examine in Carlsbad, both before and after treatment:

A gentleman, a resident of one of our Southern States, had been subject to frequent attacks of chills and fever, had been through an attack of yellow fever, and had previously been broken down by life in the Southern army during our late war. The liver extended three finger-breadths below the ribs, the spleen included three times its normal area, there was continued pain over the liver, with intestinal indigestion, hemorrhoids, and constipation. After a three-weeks' course, the liver was reduced to normal size, the spleen also, but the exhaustion was extreme, there had been a loss of nearly twenty pounds of flesh, anæmia was profound, digestion was capricious, the hemorrhoidal veins dilated. In all the patient's stay at Carlsbad no more than a laxative effect had been produced by the waters. In this case, after eight weeks' stay at Ischl and St. Moritz, a general improvement occurred, and when I left him in Paris in September he was better than he had been for years, and the anæmia was yielding to small doses of iron and bitter tonics.

The second case was that of a gentleman from New York, fifty years of age, in whom the liver and spleen were also much enlarged, and dyspepsia and anæmia very pronounced. In this case, also, reduction in the size of both liver and spleen occurred, but the force of the cardiac beat was alarmingly reduced. There were attacks of fainting, with fluttering action of the heart; also numbness of the arms and legs was frequently complained of, and the temptation was strong to discontinue the treatment, but it was persevered in for four weeks. In this case recuperation has been very slow, and at date the strength of this gentleman is less than before the treatment. At the same time the appetite is good, and the anæmia is slowly abating. At the termition of the Carlsbad course the springs of Franzensbad were selected for this patient, because of their contiguity to Carlsbad. The patient's weakness after the course was so extreme that a long journey was impossible.

* Early History of Calculus and its Treatment.

† Wood's Therapeutics, p. 486.

The waters of these springs are ferruginous, and, as I shall presently state, it is the custom to follow the Carlsbad course with a tonic regimen. The cases exhibit how powerful a therapeutic ally we possess in the Carlsbad waters; but the cases must be carefully managed while under treatment.

I noticed a group of cases at Carlsbad sent there for the mitigation of symptoms, such as come-and-go headache, ascribed to vaso-motor weakness, evidenced by the tendency to change color readily. In these cases there was often associated flatulent dyspepsia. The stimulation of the carbonic acid in the waters seemed to be beneficial by equalizing the circulation: the headache would disappear, the tongue become clean, and the dyspepsia often vanished. Some English gentlemen told me they could only secure a clean tongue by an occasional visit to Carlsbad. The headache I have designated as come-and-go headache because it is peculiar in this respect, that it is not persistent, but comes on suddenly in the night or at any part of the day. It is temporarily relieved by any warm not too stimulating drink, such as these waters. I noticed, however, that warm milk frequently seemed of as much service; but the patients themselves were satisfied that Carlsbad was alone their resource.

A word as to the climate of Carlsbad. This is frequently variable, as in all high latitudes, and an abundant supply of clothing of different textures is advisable.

The after-cure consists in despatching the patient to some mountainous resort possessed of a ferruginous spring. At present two localities are fashionable,—Ischl, in the Austrian Tyrol, and St. Moritz, in the Engadine. Ischl, in my opinion, has superior attractions for "after-cure" patients. The climate is equable, the diet good, the hotels comfortable, and the adjacent country interesting. For instance, one is then close to the mines of Saltzburg; the Austrians frequent Ischl; variety and diversion in the surrounding life are thus obtainable. St. Moritz is situated at an elevation of six thousand feet above the sea. It is a beautiful valley, surrounded by imposing scenery. But the climate is variable; they have but one really comfortable month, and that is sometimes July, and sometimes August. The adage of the inhabitants is "nine months winter, and three months cold." I was there in the latter part of July and the first part of August: variations of temperature were frequent, as much as fifteen or twenty degrees, sometimes, in a day, the average height of the thermometer being 60° Fahr. to 65° Fahr. The sun at mid-day is often hot, but the climate is too cold for anæmic people. The hotels are not well kept, and, what is worse, the drainage of both hotels and village is conducted into the river Inn. This river runs low during August; the drainage-pipes are thus exposed above the surface of the water, and the air around the large hotels is very impure. Were it not for the elevation and the wonderfully-exhilarating alpine air, I fear the effect of this vitiated atmosphere would be very noticeable. The matter of drainage is equally imperfect at Carlsbad, and it is a serious drawback to its otherwise great advantages.

I can recommend, however, the waters of St. Moritz. The proportion of iron is very small, the water is universally well digested, and, as it is rendered sparkling by the carbonic acid, it is very acceptable to the taste. The baths, which are a feature of the place, are very agreeable. Water from a spring similar to that used for drinking is employed, and the stimulating effect of the carbonic acid to the skin reminds one of the exhilarating effect of an ocean-bath. The waters are warmed by steam to any desired temperature, and after leaving a bath the circulation is equalized, and, as I said, the sensation is one of exhilaration. The bath-rooms are comfortable, but the tubs are wooden, without tile lining, so common elsewhere, and I fear they are not as clean as might be.

The remarks on the climatology of St. Moritz do not apply to the other regions in the Engadine. Pontresina, a village a few miles distant, is situated in a smaller valley, and is much less visited by high winds; but, as there is no iron spring, a daily ride to St. Moritz is obligatory. After a course of life as above described, careful diet is most important, and, although it is said to be well to leave these high latitudes gradually, after conversing with many travellers I incline to think a return to Paris or England, or for Americans a return to the United States, is far better, even at the cost of returning a second time to Carlsbad. Fish, oysters, and fresh vegetables are articles of supreme importance in a dietary, and these cannot

be procured unless in the localities I have named.

The above facts are personal observations. I have no personal testimony as to the value of the waters in the treatment for prevention of calculi, renal or hepatic.

For a treatise on the former subject I recommend the perusal of Sir Henry Thompson's work, already alluded to. For the latter, the assertions of J. Kraus must be consulted. To his work I must also refer for a statement that these waters are of value in the treatment of diabetes, although no details are given as to results.

At Carlsbad the Giesshübler Lauerbrunn water is recommended as a suitable drinking-water, the imperfect draining of the place rendering the natural water undrinkable. It is a very feebly alkaline water, of agreeable taste, but, as an alkaline water, inferior to Vichy or seltzer water, in my estimation.

ETHYLENE BICHLORIDE AS AN ANÆSTHETIC AGENT; WITH A CONSIDERATION OF ETHYLENE METHYLETHYLATE, ETHYLENE ETHYLATE, ETHYL NITRATE, AND ETHYLIDENE BICHLORIDE.

BY EDWARD T. REICHERT, M.D.

ETHYLENE BICHLORIDE, or ethene bichloride, or better known as "Dutch Liquid," and isomeric with the ethylidene bichloride, or ethidene dichloride, which has lately attracted attention through the investigations of the British Chloroform Committee, was first used by Simpson as an anæsthetic agent, and more recently by Nunnelly,* who, after making fourteen experiments on the lower animals and a number on his own students and patients, states that he found it in every way agreeable. In mammals thirty or forty minims were sufficient to cause complete anæsthesia in from two to five minutes, and with a like quantity six out of seven students were rendered completely insensible, although a second dose of twenty minims was occasionally given. In six surgical cases he used it with perfect success, and later in his paper concludes that chloroform is in no respect superior, for the animals were rendered perfectly anæsthetized in quite as short a time, showed no uneasiness while passing into this condition, remained perfectly still while in it, and, in recovering, were altogether free from any unpleasant symptoms; and, further, that if animals were rendered so profoundly anæsthetized by chloroform as with it, they would not have recovered, and that although just as small a quantity would cause anæsthesia as would chloroform, yet a much larger quantity was required to destroy life, and hence its greater safety. Simpson,† who had previously used it, stated that when its vapor was inhaled it caused so much irritation in the throat that but few persons could endure inhaling it until anæsthesia was produced. He, however, certifies that he has seen it inhaled perseveringly until anæsthesia and its usual phenomena were present, and that this condition was not attended with any excitement of the pulse or subsequent headache, and when he took it himself it produced such a degree of irritation in the throat that it did not disappear for many hours. Snow‡ found it to be a powerful agent, but deems it unsafe.

Although not much in the way of recommendation can be said for this preparation from the results of Simpson's and Snow's investigations, yet if we are to judge from those of Nunnelly it must be certain that in so far as its anæsthetic properties are concerned nothing more could be desired; and, indeed, the only objections urged by the two former investigators are its irritancy and its dangerousness. That Simpson laid entirely too much stress on the first of these objections must be inferred, because Nunnelly found it very pleasant to inhale; and so far as my personal acquaintance with the drug is concerned, both in regard to its administration to others as well as personally, it is certain that, while it does possess irritant properties, and does cause distress when first inhaled, the distress is certainly nothing like as severe as we are led to infer, nor is it much, if any, worse than that caused by the inhalation of ether; and as regards the dangerousness of the ethylene, a difference in opinion as to the degree of its dangerousness is also apparent. Still, it will be admitted that the weight of the evidence in its favor or disfavor rests with the assertion of Nunnelly, who made the most elaborate and detailed study, and, with such a weight of recommendation, it

* Transactions of the Provincial Medical and Surgical Association, xvii., 1849, p. 208.

† Edinburgh Medical Journal, viii., 1848, p. 740.

‡ Anæsthetics.

is apparent that its reintroduction to the profession is but a matter of time. It therefore seems that the present is a fitting time for the reconsideration of this compound, and for a detailed study of its properties as an anæsthetic agent, because we find the confidence in chloroform so universally shaken, the slowness, uncertainty, and many other practical disadvantages of ether so keenly felt, and that the anæsthetics recently introduced, and which were oftentimes lauded to the highest tension, have miserably failed to fulfil the promises made for them, and have even added their victims to the already ghastly anæsthetic holocaust. Hence the profession is eagerly searching for a compound which will prove to be as safe as ether and to possess all the advantages of chloroform; and, while such a stimulus exists for research and experimentation with this class of compounds, we must expect, even at this time, when the physiological laboratories of our institutions of medical learning are open for original research, and scarcely any investigator can plead an absence of facilities for vivisection, to find those who are so utterly reckless as to imperil the lives of their patients by experimenting on them before a proper physiological study has been made on the lower animals and the anæsthetic satisfactorily proven to be safe. How it is that these workers of death presume to be invested with the moral and legal right to unnecessarily jeopardize the lives of their patients is inexplicable.

From this it will be understood that the object of the writer in the preparation of this paper was to determine by an experimental investigation on the lower animals as to whether or not this anæsthetic especially, which appears so promising, is a safe one to use on the human being, and if it does possess any decidedly dangerous properties to point them out, so that if necessity or preference should ever call for its use we will be forearmed by being forewarned, and thus, anticipating certain dangerous results, can meet them promptly and efficiently, and, when it is considered that the degree of danger of any anæsthetic lies practically in its effects on the circulation, the amount of labor necessary to satisfactorily determine this point is not so formidable as it would at first appear. All anæsthetics certainly do depress the sensory nerves or centres, and especially so the cerebral centres. It is therefore obvious that we cannot hope for a preparation of this class which will not have a tendency to cause death by overwhelming certain vital portions of the nervous system and thus secondarily causing asphyxia or shock; yet the warning of asphyxia is generally so apparent that a fatal result can be avoided. But, on the other hand, where we have a compound which exerts an independent depressant action on the heart besides, we have a double danger to deal with; and that the large majority of deaths following the use of chloroform bichloride of methylene were due either to a paralysis of the heart alone or to secondary results because of such a depression, by which the already depressed nervous centres are further depressed or paralyzed on account of an inefficient supply of blood, must be apparent; and, while it is practically out of the question to even hope for an anæsthetic which will not cause death by paralyzing the nervous centres and thus causing shock or asphyxia, our one hope still lies in the effort of avoiding those preparations which decidedly depress the heart and which past experience has taught to be invariably dangerous, and of obtaining a compound devoid of this dangerous quality.

In the present investigation three modes of giving the ethylene bichloride were employed: 1st, by inhalation by means of a Woulfe bottle, by which method the air which the animal inhaled was compelled to pass through the bottle having in the bottom either the ethylene alone or numerous pieces of sponge saturated with it, the tube for the entrance of the air running almost to the bottom of the bottle, and the exit-tube being very short and merely extending to the bottom of the cork, so that the air which the animal breathed was always more or less saturated with the ether; 2d, by inhalation from a muslin cone held closely over the tracheal tube or nostrils; 3d, by intravenous injection.

General Action.—In normal animals, and when administered by the use of the usual muslin or linen cone, there are, as with most anæsthetics, three distinct stages,—excitant, anæsthesia, and profound narcosis. Here we have the struggles, general symptoms of intoxication, blunted sensibility and consciousness, a quickened pulse and accelerated respirations. Consciousness, sensibility, volun-

tary motion, and reflex action become rapidly annulled; the animal lies perfectly relaxed, and is thoroughly anæsthetized. If the inhalation is persisted in, profound narcosis rapidly supervenes, the pulse and respirations fail, and death ensues from a failure of the latter. The pupils may at first be dilated, but are afterwards contracted, and the further the anæsthetization is pushed the more fully they become so, unless it be in the last of the profound narcosis stages, when, preceding death, they have been observed occasionally to become dilated. Sensibility is invariably lost before motion, and I have almost unexceptionally seen muscular movements occur—not infrequently like clonic convulsions—after the complete abolition of ocular reflexes. It also appeared that the central functions were more seriously affected before other parts of the system.

Early in my experiments I learned that in order to know whether an animal was completely anæsthetized it was not necessary to consult the conjunctiva, but merely to watch the respirations, for just so soon as they became very frequent the animal was either anæsthetized or so near and rapidly approaching that condition that the inhaler could be removed and the operation proceeded with. If after the second stage is very pronounced the administration of the ethylene be continued, *the animal invariably dies from a failure of the respiration, and never in a single instance could I induce death by a stoppage of the heart by the inhalation of the vapor, no matter how concentrated the vapor was.*

The dose required to produce anæsthesia was about the same as chloroform, for the difference was so slight as to be unnoticeable.

(To be continued.)

POINTS IN PRACTICE BEARING UPON THE RELATIONSHIP OF TRUE OR MEMBRANOUS CROUP AND DIPHTHERIA.

BY JOHN J. BLACK, M.D.,

New Castle, Delaware.

COMPARATIVELY recent, yet growing wider from day to day, is the discussion in regard to the pathological identity of true or membranous croup and diphtheria; and the point to be decided by the medical profession is, Are hey pathologically one and the same affection, or are they, as heretofore generally supposed, different in their nature?

The distinctive name croup probably primarily referred to the peculiar changes of the voice in certain trains of laryngeal symptoms, and at the present time by the profession the word may be generally understood as referring to a genus of disease of which the various species, as spasmodic croup, catarrhal croup or catarrhal laryngitis, true or membranous croup, diphtheritic croup, or laryngo-tracheal diphtheria, etc., make up the aggregate.

Presuming that any practical results of experience bearing upon the discussion of this subject may prove of more or less interest to the profession at large, I am impelled to give a statement of the following circumstances surrounding cases to the point occurring in my own practice, without any particular note or comment:

On Friday, October 8, 1880, I was called to see two children (females), aged respectively 11 and 5 years, suffering, the messenger said, from croup.

I responded promptly, and was told by the mother that they had been under the care of an irregular practitioner, who had given up the cases as hopeless, and she requested me to take charge, hoping I might at least mitigate their terrible and incessant sufferings. Upon inquiry, I found that the oldest child was in the sixth day of the disease, and the youngest in the third day. The oldest appeared almost moribund, and was nearly unconscious from the accumulation of carbonic acid in the blood, and her great suffering appeared to be drawing to a close. The youngest was beginning to suffer the horrors of laryngeal obstruction, but yet appeared to retain full strength and activity. I examined these cases thoroughly, and could find no traces of diphtheritic membrane in its usual haunts, nor did they in any way present the well-known asthenic symptoms of well-marked diphtheria,—symptoms which had unfortunately been presented to me too often in the past year to mistake. Barring the laryngeal symptoms, the youngest child was robust and strong, and, from what I could learn of the elder, she had been equally so until a short time before I saw her. For the elder child I ordered milk and brandy to be pushed to the utmost verge of possibility, doubting that any effectual quantity could be gotten into her, and for the

younger such remedies as appeared to me best, not omitting the sheet-anchors in these affections,—food and stimulation, and vaporizations locally. Upon visiting the cases early the next morning, I was surprised to find the older child not only living, but really, under the circumstances, much improved by the treatment instituted, and for the first time I commenced to entertain an idea of helping her. Her pulse had changed for the better,—for, indeed, before she had been almost, if not quite, pulseless,—her temperature inclined to decrease, and she was entirely conscious, and, of course, with this state of affairs the effects of laryngeal stenosis were more marked.

There was no albumen in the urine in either of these cases by Heller's test, but mixed urates existed in great excess, and illustrated, better than in any cases I had ever met, the necessity of guarding against the mistake of assuming them to be albumen, when the more insoluble of the urates are thrown down after adding the acid. Heat applied here dissipated the ring entirely. In examining the urine in diphtheritic cases I would insist upon great care on this point, as the excess of urates in the urine so often present may readily be mistaken for albumen. If cases which are generally recognized as diphtheria and are generally or always asthenic in their nature, and cases which are generally recognized as membranous croup and are generally or always sthenic in their nature, should be proved to be one and the same disease, arising from one common cause, the presence of albumen in the urine in the one set of cases occurring far more frequently than in the other may be caused by the greater excess of parasites in the blood in the former or asthenic cases, nephritis, as has been suggested, being set up by the passage of the bacteria of the blood through the kidneys.

The peculiar surroundings of these cases, professionally considered, induced me to take an especial interest in them, and I requested my friends Drs. D. F. Woods, of Philadelphia, and David Stewart, Jr., of New Castle, to see the cases with me. Dr. Stewart had already pronounced the cases membranous croup, as so understood by the profession at large; and when this diagnosis was confirmed in every way, after a very careful examination, by a diagnostician so well and generally known to the profession as Dr. Woods, I felt abundantly strengthened in my first impressions.

The younger child was now beginning to suffer all the horrors of laryngeal obstruction, and the elder offered but one hope, and that only as to euthanasia apparently: so, having with some difficulty obtained the necessary consent of the family, and with the advice and full approbation of Drs. Woods and Stewart, and aided by their very valuable assistance and advice, I performed tracheotomy, first on the oldest child, and next on the youngest, introducing the tubes in each case immediately after the operation, the immediate results of which in both cases were all that any surgeon could desire. The oldest child died on the third day from exhaustion, her life prolonged three days at least by the operation. The younger child died on the sixth day. Acute inflammatory œdema of the tissues of the neck supervened on the third day, which tended greatly to prevent a favorable issue. There was no tendency to the formation of membrane on the cut surfaces in either case. One great balm to the unsuccessful termination was that euthanasia was accomplished in both cases.

In October, 1878, from the effects of the great storm of that month, the lowlands adjacent to this city were overflowed from the breaking of the levee guarding these lowlands from the encroachments of the Delaware River. This levee was repaired and all of the water shut off by June, 1879, following. In the month of August, 1879, a serious epidemic of diphtheria broke out in the city of New Castle, and raged with great violence until March, 1880, when it ceased, only a few sporadic cases having occurred since. With this exception, no place rapidly extending as this city is could have been more free from epidemic or contagious diseases. The house in which the cases whose history I have narrated occurred is situated on Vine Street, which situation compares favorably as to healthfulness with other parts of the city. The front room of the house had been used as a meat-market in 1879, and the man occupying it during the diphtheritic epidemic of that year lost two children by that disease. I did not attend the cases myself, but from what I could learn they died from laryngeal obstruction.

The meat-market remained in the house until March, 1880, when the mother of

the children whose cases I have related moved in, and the premises were thoroughly cleansed and purified. This woman kept a trimming-store, and the surroundings here, as to health and cleanliness, were apparently good, except the cellar, which needed and received prompt attention. Two days before the youngest of these little girls died, an older sister in the same house developed a well-marked case of true diphtheria, involving the throat generally. The case responded to treatment, and fortunately no laryngeal symptoms were developed. In this case there was a small amount of albumen in the urine. This case showed the presence of the diphtheritic poison in the premises, and pointed out a cause for the laryngeal cases which ended so disastrously and gave to me a clear illustration of the coexistence of well-marked cases of membranous croup and diphtheria, and, I assure the reader, have caused me to pause and consider, as I have never considered before, whether or not true croup and diphtheria have not one and the same cause and are not one and the same disease.

April 21, 1881.

AN IMPROVED DIACHYLON OINTMENT.

BY LOUIS A. DUHRING, M.D.,

Professor of Skin Diseases in the Hospital of the University of Pennsylvania.

PERMIT me to call attention to an improved diachylon ointment. According to my experience, very few pharmacists are able to furnish a satisfactory ointment made after the several published formulæ. In the second edition of my Treatise on Diseases of the Skin, page 186, I give the original formula of Prof. Hebra, together with full and explicit directions for its manufacture, derived from personal experience, and, as there stated, a valuable ointment may with care thus be obtained. In the hands, however, of pharmacists unacquainted with the details of its preparation, the bare formula is of little value, as the result will usually prove.

Recently Mr. M. Eisner, manager of the Cramer & Small Pharmacy, in Race Street below Fourth Street, has on several occasions furnished me with an ointment of such uniformly superior quality that I have been led to investigate his method of manufacture.

He informs me that he has always experienced much difficulty in preparing and also in keeping diachylon ointment made according to Hebra's directions. After considerable experimenting, he has arrived at the following formula, which furnishes an ointment containing a definite amount of oxide of lead, which, with the use of litharge, cannot be estimated. One part of freshly-precipitated (from acetate of lead) pure white hydro-oxide of lead is rubbed with two parts of water, and mixed well with six parts of the best Lucca olive oil. It should be stirred for about two hours over a hot-water bath near the boiling-point, and cooled with constant stirring until the proper consistence is obtained. While cooling, a drachm of oil of lavender to the half-pound of ointment is added.

This ointment, according to Mr. Eisner, contains the oleo-stearate of lead, has a neutral reaction, and can be kept in good condition for some time. It is a smooth, whitish, elegant preparation, and is altogether more desirable than that made according to the original formula.

TRANSLATIONS.

FATTY EMBOLISM. — C. Sepp (*Cbl. f. Chir.*, 1881, p. 135; from *Inaug. Diss., Leyden*, 1880) comes to the conclusion that the existence of fatty emboli in living warm-blooded animals has not been proved. The fact that fat-collections have been observed after death in the capillaries does not prove that they occur during life. Grohé thought that the disturbance of the circulation during the death-agony might drive together the finest particles of fat, and give rise to the emboli found after death. Though Sepp admits that the difficulty of emulsifying fat with blood may lead to the collection of distinct oil-globules smaller than the capillaries, and thus support Grohé's views, yet he believes that the occurrence of fatty emboli in living animals is doubtful, for the following reasons.

Emboli can only form when the blood-pressure is insufficient to overcome the resistance met with by the fat-globules in the capillaries. This resistance is chiefly dependent upon the cohesiveness of the fat-corpuscles, which is diminished when the temperature increases. If, then, fatty emboli are found in cold-blooded animals,

that is no reason why they should be found in warm-blooded ones, where not only is the temperature higher, but the blood-pressure greater. The occurrence of fatty emboli after death proves nothing, since these occur during the death-struggle, when the blood-pressure is diminished.

Sepp experimented on rabbits, injecting oil into the lingual artery, and then examining the retinal capillaries, but failed to find any emboli. Müller, in 1860, reported a case where a fatty embolus was found in the retinal vein of a patient suffering from renal disease; but, as this statement is unsupported by similar cases, it must be concluded that the occurrence of fatty emboli in warm-blooded animals is very doubtful.

In addition to the above-discussed question, Sepp reports that he has succeeded, by making post-mortem injections into the pleural cavity, in producing emboli. He finds, also, that vaseline is very rapidly absorbed and excreted; finally, that, almost without exception, the temperature of the animal experimented upon became lowered immediately after the operation.

In conclusion, Sepp made the following experiments in the absorption of fat in inflammation: 1. The hind leg of a dog was rendered bloodless by Esmarch's bandage, and was then dipped for a few moments in water of about 70° C. Five days later, the dog, having showed oil in his urine, was killed by strangulation. Examination showed diffuse fatty emboli in the lungs and kidneys. 2. A rabbit had its hind leg merely enveloped in an elastic bandage. Twenty-four hours later, he was killed, when fatty emboli were found in the lungs. 3. The same experiment was tried, only the animal was killed with carbonic oxide gas. Several fatty emboli were found in the lungs and kidneys.

The Question of Mobilization or Immobilization of Diseased Articulations.—Verneuil (*Cbl. f. Chir.*, No. 10, 1881; from *Bull. de la Société de Chirurgie*) states four circumstances under which, usually, artificial mobilization of a joint is sought: 1, to overcome an existent anchylosis; 2, to improve an imperfect or inconvenient position; 3, to increase the mobility of a joint as yet not completely anchylosed; 4, to prevent anchylosis.

In order to establish his position (favorable to immobilization), in opposition to the prevailing custom, Verneuil begins by asserting that no single case exists in science which goes to prove that a long-continued immobilization of a *sound* joint can cause anchylosis. On the other hand, numerous cases are on record where healthy joints have rapidly gained their normal mobility a very short time after being released from long-continued immobilization. The conclusion is that healthy joints do not become anchylosed even after long-continued rest. How is it with diseased joints?

Granted we desire to give rise to anchylosis, what do we do? Fix the joint? Not at all. We endeavor to excite purulent inflammation of the articular cartilages. An "anchylophobist" must now immobilize the joint, to prevent anchylosis. But experience has shown that immobilization is the surest way to prevent inflammation, and the danger of anchylosis increases with the intensity and duration of the inflammation. Thus, anchylosis is here best prevented by keeping the joint quiet. Nature itself shows this; for the neighboring muscles are found contracted, or at least, as Verneuil expresses it, in a state of extreme vigilance. What justifies us, therefore, in blaming the immobilization in this case, and not much rather the joint-affection, in case anchylosis occurs? Conclusion: diseased joints do not become anchylotic by immobilization, but as a result of the peculiar form of inflammation and its deleterious effects.

Verneuil goes on to show that anchylosis is a much rarer result in the various joint-affections than is generally supposed, and that, on the contrary, too great anxiety and fear of anchylosis has led, especially in fractures near joints, to premature attempts at mobilization, with the result of doing more harm than good.

When anchylosis does occur, following long-continued immobilization, the cause is to be found either in the severity (or variety) of the inflammation (blennorrhagic arthritis, inflammation of the joint in osteo-myelitis,—occurring in the neighborhood of the epiphyses,—arthritis of pregnancy) or the position of the fractured fragments hindering the normal function (as in fractures into joints). In other cases, although stiffness may last for a while, yet in the course of time nature will restore the joint to its normal condition.

Acute Symptoms in Exophthalmic Goitre.—Dr. M. P. Merkelen (*La France Médicale*, 1881, p. 338) gives the case of a

woman who had been subject to exophthalmic goitre for six years, the disease following the usual type to within a month of her admission to the hospital, at which time she was attacked by acute symptoms following exposure to cold, for which she sought relief. On examination, the patient's face was congested; the thyroid was enlarged, especially in the left lobe, and throbbed violently, but with intermissions of five seconds, in accord with the pulse and heart. Exophthalmus was marked, without troubles of vision, however; the pupils were constantly dilated, and reacted imperfectly to the influence of light. There were also cardiac palpitations of such violence as to raise the left side of the thorax at each systole. No morbid sound on auscultation, but numerous irregularities. There occurred, in addition, epileptiform attacks in the face and limbs, chiefly of the right side, sometimes incomplete, sometimes abortive, sometimes complete, but without the cry or coma. When the attacks interrupted the patient in the middle of conversation, she took up the thread again after the attack just where it had been dropped. These convulsive attacks appeared to occur just after the prolonged intermissions of the heart and pulse, which sometimes, as has been said, lasted five seconds. They occurred every minute or every two minutes during the examination. Finally, general hyperæsthesia over the abdomen, with gurgling and the *tache méningitique*, was observed. The bowels were constipated, the urine albuminous. The patient was placed upon digitalis and bromide of potassium, with an aperient.

Within a few days marked amelioration in all the symptoms took place. The pulse fell to 90, and the patient appeared to be getting better, when a new group of symptoms manifested themselves,—an eruption of erythematous macules of the thyroid region and lower part of the face, with pain on touching the skin. The heart was decidedly dilated, and throbbed violently. There was marked hyperæsthesia over the abdomen and thighs. In the following days pains in the neck, disturbance of vision, and diminution of albumen in the urine were remarked. The pulse sank to 54–60. The patient slept little, and suffered from repeated epileptic attacks; the temperature rose to 104°, the tongue became dry, and there was diarrhœa and incontinence of urine, painful congestion of the liver, with jaundice, subcrepitant râles at the base of the left lung, with abundant expectoration. Gradually from this time the patient began to mend, and recovered her normal condition, and at the end of a week was able to leave the hospital. The treatment was essentially the same throughout, only that inunctions with ung. hydrarg. and dry-cupping were employed over the chest.

In remarking upon the peculiarities of this case, Dr. Merkelen suggests hyperæmia and irritation of the bulb as the probable cause of the convulsive attacks: this hyperæmia and irritation translated to the ganglia of origin of the pneumogastrics showed itself by the irregularities in the heart's action. The congestive troubles showing themselves in the albuminuria, the diarrhœa, the icterus, may all have been the result of bulbar influence. The happy effect of the treatment was manifest. Digitalis, indicated as a tonic to the vascular system, and as a regulator for the circulation, acted most effectively in arresting the irregular movements of the heart which were so threatening.

MULTIPLEX FIBROMA OF THE LUNG.—Rindfleisch (*Virchow's Archiv*, Bd. lxxxi., 1880, p. 517) gives the case of a boy of 12 years who died in the hospital of chronic catarrhal trouble of the respiratory tract, without an exact diagnosis of his disease during life. One symptom in particular was very curious and doubtful, namely, the secretion and rejection of a considerable quantity of a clear yellow fluid which was mixed with the sputum. The only way of accounting for this morbid, lymph-like discharge was by the supposition of a lymphorrhœa pulmonum. The examination post mortem explained the lymphorrhœa, but in a very unexpected and peculiar way. The lungs were found bound to the costal pleura throughout their entire surface by leaves or layers of various thickness and tenacity, not connecting opposite portions of the pulmonic and costal surfaces by bands, as is usual, but like a sort of intermediate skin. On cutting open the lungs themselves, enlargement of the mediastinal glands was found, and in addition to this a number of small nodular masses, resembling the cheesy deposits of tuberculosis, were found scattered through the lung-tissue. On section, however, these were found to be true fibrous nodules, like those of fibroma molluscum of the skin,

having a cavity in the centre and numerous lymphatic vessels connected with the air-passages in such a way as to account for the peculiar fluid coughed up by the patient.

POTT'S DISEASE OF THE SPINE OF SYPHILITIC ORIGIN.—Prof. Alfred Fournier (*Annales de Dermatologie et de Syphiligraphie*, t. ii., No. 1, 1881, p. 19) gives a case of this affection which is, we believe, unique in the annals of medicine. For, although such cases have probably come under the notice of physicians, yet their origin has not been traced to a syphilitic source. Prof. Fournier's patient was a man, 56 years of age, a fine, robust figure, who declared he had never suffered a day's sickness in his life, but who showed signs of enfeebled health. He was emaciated, and so weak that he could scarcely walk, and he had quite lost his appetite. He complained also of pain in the lumbar region ("the kidneys") of a constant, dull character, but with occasional exacerbations of a few moments' duration, the pain then extending to the lower limbs.

Although this was all of which the patient complained, yet on examination various lesions, evidently of a syphilitic nature, were discovered. Thus, he had a syphilitic sarcocele, ten subcutaneous or muscular tumors, which from their appearance and history could only be gummatous, a gummatous ulcer of the great toe, a pigment spot upon the thigh, marking the seat of a recently healed ulcer, and marked atrophy of the muscles of the thigh.

The diagnosis of syphilis having been made, the appropriate treatment was directed, under the use of which the patient's external symptoms all improved; but his general condition grew worse from day to day. Later new symptoms showed themselves,—œdema of the lower limbs, hepatic pains, meteorism, ascites, pleuritic effusions, etc. His appetite failed, his strength left him, he became extremely emaciated, he fell into a condition of cachexia, and finally succumbed.

The post-mortem examination showed, in addition to the external lesions mentioned above, granular cirrhosis of the liver, with extreme peri-hepatitis enveloping the whole organ in a sort of husk of tough false membrane; characteristic cicatrices of the surface of the kidney; a gummatous deposit enveloping the fourth left lumbar nerve at its exit from the plexus, with degeneration of the nerve itself. In addition, there were multiple and considerable lesions of Pott's disease, affecting the lumbar spine chiefly in the third, fourth, and fifth vertebræ; denudations of the bones; thickening or destruction of the periosteal or ligamentous membranes; lesions of osteitis condensans, with purulent and caseous infiltration; almost complete destruction of one intervertebral fibro-cartilage; a vast cavity in the centre of the lumbar vertebral column; abscess by congestion in the thickness of the psoas on both sides, etc.

Of course, the most important question in this case was regarding the etiology of the Pott's disease. Was it a simple coincidence, a Pott's disease of the common variety superimposed upon a syphilitic constitution or concurrent with syphilitic disease, or was the Pott's disease itself of syphilitic origin?

Prof. Fournier decides in favor of the latter view: first, on account of the patient's advanced age, Pott's disease in the tubercular form being of extremely rare occurrence after youth; second, on account of the patient's previous robust health, the history of which, extending uninterruptedly through a lifetime, pointed away from the known antecedents of ordinary Pott's disease and in favor of a late diathetic infection of the system; third, the pathological concomitant, the various other unmistakably syphilitic lesions found, pointed to syphilis as a cause of the spinal affection; fourth, the appearance of the vertebral lesions themselves was characteristic,—their sharply defined outline, their clear yellow color, characteristic of the caseous gumma, and the regular hemi-circled configuration of the lesions composing the bony changes on the anterior aspect of a lumbar vertebra. Finally, at the origin of one of the conjugate ligaments of the lumbar column there was a tumor arising from the periosteum, which was recognized as a gumma, and the gummatous envelope of the nerves above mentioned showed signs of caseous degeneration in parts.

Prof. Fournier gives very full and careful notes of this important case, and also a report of the histological examination of the tumors. An excellent chromo-lithograph of a section of the diseased vertebræ accompanies the paper.

AFFECTIONS OF THE EYE AND EAR IN RECURRENT FEVER.—The epidemic of recurrent fever which recently affected Königsberg has afforded Dr. Luchau (*Virchow's Archiv*, Bd. lxxxii. p. 18) the opportunity of observing and noting the occurrence of complications in the eye and ear. Out of one hundred cases of recurrent fever under Dr. Luchau's observation, thirteen cases of ear-disease were observed, nearly all occurring about the beginning of the fever, and all involving the middle ear, and usually inflammatory. The treatment recommended is as follows. When no suppuration has taken place, local phlebotomy is usually sufficient to allay the pain. When this is not enough, morphia may occasionally be employed. When suppuration has taken place, paracentesis of the membrana tympani is to be practised without delay. This little operation is painful for the moment, but soon gives great relief. The after-treatment consists in washing out the pus with a warm one per cent. solution of carbolic acid in water. A glass syringe should be used only in case of necessity: it does not give a strong enough jet to wash out thick pus. The cleansing of the tympanic cavity is best to be accomplished by Valsalva's method.

Of eye-affections Luchau observed six in his one hundred and eighty cases of recurrent fever. In three of these one-sided iritis occurred; in one case hypopion also supervened. All three cases were cured without evil after-effects. In two cases the eye-trouble took the form of neuritis optica. In another case inflammation of the optic nerve was observed in a second attack of fever. It is a curious fact that towards the end of the epidemic the number of the eye- and ear-troubles diminished in proportion to the diminution in the number of cases of recurrent fever.

OBSERVATIONS ON THE OCCURRENCE OF BILHARZIA HÆMATOBIA.—Dr. John Wortabet, the well-known medical missionary, writing to Prof. Virchow (*Virchow's Archiv*, Bd. lxxxi. p. 578), says he has had lately under his care two cases presenting the following symptoms. 1. A small quantity of blood, from one to a few drops, voided after micturition, with a little strangury,—the constitution a little weakened, but otherwise not much affected. 2. The ova are always found in the clots; their form is more regular than is generally given in books; the embryo may be distinctly seen within the shell,—sometimes moving. 3. A free embryo may be occasionally seen with its cilia in action. From fresh specimens he has often succeeded in gently crushing the egg by pressing the glasses and thus liberating the embryo in a living state. 4. He once opened a vein in the arm, but found no ova in the blood.

Prof. Virchow, commenting on this note, says that Dr. Wortabet sent him at the same time some specimens of blood mingled with urine. Although extreme decomposition, with the formation of bacteria, had taken place, numerous ova of the bilharzia (distoma hæmatobium, v. Sieb) could be seen, with several embryos.

PHYSIOLOGICAL AND THERAPEUTIC INFLUENCE OF BROMIDE OF ETHYL IN EPILEPSY AND HYSTERIA.—Drs. Bourneville and D'Olier (*Le Progrès Méd.*, 1881, p. 228) have made a series of investigations on this subject, of which they give a résumé in their paper. Their conclusions are as follows. 1. Dilatation of the pupil at the beginning of the inhalation is not constant. 2. Complete muscular relaxation is exceptional. 3. Anæsthesia is produced in varied degrees, dependent upon the idiosyncrasy of the patient. 4. The temperature, the secretions, and the general condition of the patient do not appear to undergo any modification. 5. The pulse and respiration are slightly accelerated. 6. More or less marked trembling of the limbs may be produced during inhalation, but this does not persist any longer. 7. Hysterical attacks are generally easily arrested by bromide of ethyl. 8. Attacks of epilepsy may sometimes be arrested by giving the medicine from the tonic period; most frequently inhalation is of no benefit. 9. In epilepsy the regular use of bromide of ethyl, administered in daily inhalations during a period of one or two months, diminishes very notably the frequency of the attacks.

UNIVERSITY OF MARYLAND.—Dr. I. Edmondson Atkinson has been elected Professor of Pathology in this school. He still retains the Clinical Professorship of Dermatology, previously held by him. Prof. Louis McLane Tiffany has been elected Professor of Surgery in the University of Maryland, Baltimore, *vice* Christopher Johnston, made Emeritus Professor.—*New York Med. Record.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MAY 7, 1881.

EDITORIAL.

THE UNITED STATES NAVAL MEDICAL SERVICE.

IT is probable that there is no medical government service in the world the requirements for admission to which are more severe than is the ordeal through which the medical candidate for naval honors must pass in this country. We are credibly informed that twelve aspirants have been before the examining board now in session without one having succeeded. So far as a good deal of experience teaches us, we should say that the standard is even higher for the navy than it is for the army. Most of our readers will no doubt agree with us, however, that when once in the navy a physician almost always disappears entirely from public sight, whereas in the army not rarely he rises to a first rank among scientists. The doings of the medical staff of the United States army are the talk of the world; the acts of the medical staff of the navy, what *are* they? A few reports lying upon book-shelves,—pitiful pamphlets alongside the invaluable tomes that have come from the Surgeon-General's Office at Washington.

Not only is this true of medical works proper, but also of scientific publications other than medical. Where is the Dr. Coues of the navy? Yet the abundant leisure, the months of floating in the tropics, the wide travel, afford both stimulant and opportunity for natural history research.

There must be some especial reason for these things. Is it that salt air is a veritable lotus-flower, soothing into an irresistible indolence him who breathes its miasm? Or is it because there is something faulty in the organization of the service itself? It may not be for a civilian to speak lightly of, or even to attempt to understand, the intricacies of military discipline, but is it not possible that general principles and common sense are applicable to men in uniform and to governmental organizations as well as to men in plain clothes and to corporate or private undertakings? How long would any business enterprise thrive whose management was changed every year or two?

The Surgeon-General of the army holds his position for years securely; the chief of the naval bureau clings most insecurely to his place for four years, or more frequently drops from his perch in a year or two, as helpless as a three-toed sloth when a rifle-ball or a storm-wind cuts the branch to which he has been attached. Unfortunately, the position as the medical chief of the navy gives to its occupant a special rank, which when once attained is forever held. The appointment nominally is for four years; but, in fact, so soon as a man is fairly in he begins to think, "I cannot stay here long enough to personally impress the service. My friend Jones wishes to be admiral, commodore, commandant [or whatever the rank is]. I'll get out, and let him in." Or friend Jones says to himself, "My friend Smith is now in; he can't get anything more by staying in, and I can get a good deal by getting him out: so out he shall come at the end of his term, if not before." Jones is aided by Jones second, Jones third, and so on to the fourth or fifth generation, who see Mecca looming in the distance, and have hopes. No one thinks of the service, much less of the profession, and in the heat of personal struggle science and the scientist are lost in the limbo of the uncared-for.

At present the chief of the naval bureau is a man well known to the profession by his writings, though we doubt if any of

our readers know that he is chief of the naval bureau. Surgeon Wales, of course, has scientific sympathies, and if he were permanently located in his place, we are convinced, would bring the service into repute by affording encouragement and facilities for work. Jones would like him out; but cannot the profession appeal to Jones to sink immediate personal interest for the general good, and at least wait his turn? The recent decision of the United States Supreme Court in regard to military affairs may be law, but seems to us extremely unfortunate for the government, as opening a door for the entrance into the military service of that system which has debauched the civil service of the country. It has been hitherto held that no commissioned officer could be discharged from the service save only through a court-martial or by act of Congress. A certain naval chaplain became crazy and sent in his resignation. It was accepted, and a successor nominated, and confirmed by the Senate. By and by chaplain No. 1 recovered his reason, and was astonished to find himself out of the service. He proved to the court that he was insane when his resignation was written, and that therefore he had not legally resigned, but was still entitled to rank and emoluments. The court, however, decided that the appointing power under the Constitution carries the dismissing power, and that if the President nominate a person for a military or civil position, and the Senate confirm, the joint act removes by presumption the previous holder of the office. The poor chaplain found himself, therefore, hopelessly shivering in the cold blasts of official and permanent dismissal. It is readily seen that under this decision the chief of the naval medical bureau has his hands full in watching the President, the Senate, and his own subordinates. Is it not possible for the American Medical Association to represent this matter by committee to Congress in such a way as shall lead to good?

THE American Laryngological Association will hold its annual meeting in the hall of the College of Physicians, May 9, 10, and 11. The profession is cordially invited to attend.

CORRESPONDENCE.

LONDON LETTER.

IN my letter two months back I made some remarks about the Royal College of Physicians of London, pointing out that, though it guaranteed the conduct of its Fellows and members, it had failed to exercise any inhibitory control over Sir William Gull when disposed to take his own way. I said some things which several may have thought rather strong, but I have been told that they were not sufficiently vigorous for the occasion. Just after mailing the letter the following sentence occurred in the *Lancet*: "Unhappily, there is not the remotest probability of the dignified but lethargic corporation in Pall-Mall being aroused to healthy activity by example or remonstrance of any kind." This at least is vigorous enough to satisfy any critic. In the previous letter it was said the College was coming to evil days. It seems that this is a fact about which no mistake is possible.

Lord Beaconsfield, as is generally known, is an Oriental—a Hebrew, indeed—who has risen to place and honor, whose career has been meteoric, and who is apparently disappearing with a great display of fireworks. For some years past Lord Beaconsfield has reposed his professional confidence in one Dr. Kidd, a man of great repute in the city, a man in most extensive practice, but imbued with homœopathic proclivities. Consequently, when the earl's illness became very grave a consultation was deemed desirable. There was apparently no other person of homœopathic faith whose opinion was worth the taking, so it was left for the earl and his friends to call in one of the recognized leaders of the profession. The first choice fell upon Sir William Jenner, who met the request with a flat negative, like the straightforward man he is and always has been, holding the honor of the profession to be his first consideration. Then Dr. Quain was sought. At first he objected, but ultimately consented. Whether he knew or did not know that Sir William Jenner had been asked and had positively declined does not appear. It was an oversight if he was not told; but it may be well to give him the benefit of the doubt. "Was Lord Beaconsfield to die without assistance?" Well, seeing that his lordship knew or ought to have known that in placing himself under a homœopathic practitioner he was deliber-

ately cutting himself off from the advantage of consulting regular practitioners, he was only meeting the fate he had courted; he had made his choice; it was his own concern, and nobody else's. Probably he calculated upon a weak compliance, treating the medical profession with that contempt which is accorded to it by persons in his present position in life. Nothing could prove more incontestably what I have before written about the social position of the profession than this present story. It seems to have been taken as a matter of course that the profession would bow the knee to Baal when asked to do so.

Dr. Quain first said he "could not meet a homœopath under any circumstances." He was assured that the noble earl was treated not homœopathically, but "according to the regular practice of allopathy." Under this solvent Dr. Quain's scruples disappeared swiftly. The *Lancet* spoke out with no uncertain sound. It said, "Wide-spread astonishment and unfeigned regret have been occasioned by the announcement that Dr. Quain, an eminent physician of the orthodox school of scientific medicine, has been called in consultation at the bedside of the Earl of Beaconsfield, and consented to meet and act with Dr. Kidd, a reputed homœopath. The explanation offered is that Dr. Kidd had not been treating the noble lord on homœopathic principles, but 'according to the regular practice of allopathy,' whatever that may mean: and Dr. Quain, though he at first declined, having satisfied himself on this point and taken the advice of 'leading members' of the profession, was able to lay aside his scruples and even to persuade himself that he 'would not under the circumstances be justified in persisting in his refusal.' The question which first suggests itself, on receiving this account of the matter, will probably be, *Who* are the 'leading members' of the profession upon whose counsel Dr. Quain acted? It is not a little remarkable that no recent scandal has occurred or mistake has been committed by any prominent member of the profession without a similar expression of opinion from some unknown or unrecognized 'authority' lending countenance and giving approval to the wrong done."

The *British Medical Journal* the next week supplies the desired information. The counsellors were Sir George Burrows, Bart., ex-President, and Sir James Risdon Bennett, then actual President, of the College. Such were the advisers in this case. Subsequently the opinions of Sir Thomas Watson and Sir James Paget were asked,—after the thing was done. But the first two were the accessories before the fact, on whose advice Dr. Quain resolved to act against a well-recognized rule. These, then, are "the most prudent and experienced Fellows" according to the *British Medical Journal*. Little can be said for their prudence here; and as to their "experience," the comment of the *Lancet* is most suggestive. It seems a pity Dr. Quain did not ask some Fellow with a little more "moral backbone" than these two titled Fellows. As regards Sir James Risdon Bennett, as the then actual President of the College, it would have been easy for him to decline to give or express any opinion,—a course the "prudence" of which is palpable; but perhaps his "experience" went in another direction. Certain it is that these two counsellors gave advice which the profession, as a body, resents. The matter was brought before an extraordinary meeting of the College on the 11th instant by Dr. John Charles Bucknill, whose manliness and integrity are so well known and so widely recognized. "The President, after intimating that there could be no discussion on the matter, requested Dr. Quain to reply to Dr. Bucknill's question." Certainly this was a judicial attitude to assume with a vengeance. Sir William Jenner felt his conduct to be impugned by Dr. Quain's explanatory remarks, and "rose to make a personal explanation, assuring the President, who ruled that the matter could not be further debated, that he was not about to discuss Dr. Quain's action, but merely wished to inform the College that he had himself been asked, previously to Dr. Quain, to see Lord Beaconsfield in consultation, and that he had distinctly refused to do so; adding that if Dr. Quain's conduct met with the approval of the College his own deserved censure." This was manly and outspoken, and has commanded the unreserved approval of the profession. The outgoing President might rule, if he liked, that there could be no debate at the council meeting; but he cannot stifle the expression of opinion by an outraged profession outside that council-chamber. Perhaps such expression of opinion has as little weight with him in this matter as the opinions expressed a little time ago about his knighthood apparently had with him. Oligarchies are superior to outside opinion so long as their day lasts. But this recent procedure will tend to bring down the tumbling edifice which had previously begun to totter. A ruling body which acts in defiance of public opinion ought to foresee that its existence —as an authority in matters of opinion—is simply at stake. But foresight is not what they have been remarkable for: indeed, the *Lancet's* comment involves more than the accusation of mere want of foresight.

The imbroglio is a pretty one, certainly. Granting that Dr. Quain felt that some odium might attach to him, since "he might, in the event of a fatal result, be looked upon as contributing to his lordship's death." Well, and, if so, what then? He would have been sustained by his professional brethren, and have rowed in the same boat as Sir William Jenner. That Dr. Quain yielded to a temptation too much for his powers of resistance is certain, and that he met in consultation again and again a

homœopath is only too obvious. Dr. Kidd writes, "He communicated with me as to how I was treating the case, and, upon receiving my assurance that it was not homœopathically, he without hesitation visited the patient, thus fulfilling the spirit of that 'boast of the medical profession, that in the hour of sickness it recognizes only humanity in need of succor.' In this way Dr. Quain and I did work together without being agreed, nor did either sacrifice his convictions to effect the co-operation." (*British Medical Journal*, April 16.) This is a most remarkable epistle. The "without hesitation" is a new light upon Dr. Quain's conduct; but the last sentence is beyond my comprehension altogether. They co-operated "without being agreed,"—certainly this is a novel kind of medical consultation,—yet neither sacrificed his convictions! The entanglement is superhuman: certainly we all will await the result with the greatest interest. So far it is a case of "the further in the deeper."

The profession is in a state of tension. The *Lancet* and the *British Medical Journal* are in direct antagonism in the matter. The latter says, "Dr. Quain immediately went to Sir George Burrows, on whose wisdom and profound sense of what was due to the profession he could rely, *and from whom he had always experienced great and uniform kindness*" (the italics are mine). When the editor resorts to "talk" like this, it is virtually admitting that his advocacy is handicapped heavily. He goes on to say of Sir William Jenner, "The reason which he assigns in the circumstances is not valid for the purpose, and not pertinent to the case." That this remark is certainly most "impertinent" none will for a moment doubt. Dr. Quain's conduct he holds "was alike accordant with professional ethics and public duty." No one will attach much importance to the views of the editor of the *British Medical Journal* in the matter of "professional ethics and public duty." And his attitude in this affair will still further widen the gulf already existing betwixt him and a large section of the members of the Association. His advocacy, such as it is, is about the most damaging matter for those whom he defends that could happen. "Save me from my friends!" indeed, may each exclaim. There is a wide-spread and rapidly extending circle who do not think Mr. Abraham Ernest Hart the fittest man possible to represent the Association as editor of its journal, and his views expressed in the present matter will not tend to reconcile them. The bulk of the profession feel that the law not to meet homœopaths in consultation has been violated in a conspicuous instance. They know how a certain section of the public will seize upon this precedent as an excuse for putting pressure on lesser men, of which they will not be slow to avail themselves. Let us suppose a case. Morland is a small town, where there is a most important local gentleman resident who reposes confidence in homœopathy and is attended by a homœopathic practitioner. His life is an important one in the locality in which he resides. He is "in a condition of such serious illness and great debility as to make it impossible that he could give any continuous account of his present or past illnesses, and that there was no other person available who could furnish the information but D——," and a local practitioner is called in. The value of the patient's life is to be made the gauge of professional conduct. Yes; but if this had taken place, the local practitioner having availed himself of such advice from neighboring medical brethren as was at his disposal, what would the editor of the *British Medical Journal* have done? In all probability he would have become the strictest stickler for professional honor and public duty, and have denounced that unlucky local humanitarian with all the stage thunder he could command. At least, if he did not so act, a good many of us would be very particularly surprised. All that was necessary was the assurance that the patient had not been treated homœopathically, and the matter was settled. Of course this precedent will be used readily in other cases, and the local man who will not bow the knee to Baal will have to suffer for his convictions. That is the long and the short of it. Persons can play at "homœopathy," and when a serious emergency arises call in the services of the orthodox members of the profession by a quibble, just as Lord Beaconsfield did. Where is the unity of the profession then? Of course we can make all allowances for Mr. Hart's regard for the interests of this distinguished representative of the Semitic race; but really the interests of Aryans must not altogether be lost sight of. Both are aliens in blood, and there are those who do not approve or unquestioningly believe in the rule of aliens. The whole matter will have to be thoroughly investigated, and the position of the profession towards homœopathy, especially when prominent members of society are involved, must be settled; the sooner the better. That Dr. Quain felt keenly that to leave Lord Beaconsfield unseen and to Dr. Kidd singlehanded was rather hard, is probable enough. But then, granting this, it is just how to act in emergencies that laws are specially enacted for the guidance of the individual. Some new enactment is called for after this case. And when a new regulation is made it is to be sincerely hoped that the "leading members, the most prudent and experienced of the profession," will see their way to abide by it, if only to keep other and less eminent members of the profession out of awkward predicaments, instead of "leading" them into sloughs. What the body or bulk of the Fellows thought on the matter is best testified by the election of President at their meeting. Sir William Jenner had just made his personal

explanation; and what did the Fellows do? Out of one hundred and eight Fellows present, eighty-seven voted for Sir William Jenner: that was their action. Sir J. R. Bennett came next, with seven: that was what they thought of his advice as President of the College. Nothing could be more significant than this election of President, as to what the Fellows as a body thought of the matter. The outgoing President (Sir J. R. Bennett) said "he had no fear for the future of the College, which was representative of British medicine, and he urged that the way to maintain its reputation was by circumspection in the elections into the Fellowship." This is a remarkable expression of opinion, certainly. For the College has washed a deal of dirty linen during his Presidentship, and the dissatisfaction about the method of electing Fellows is greater than ever. Perhaps the clique who have ruled the roast in the councils of the College could be well spared in the interests of the profession, to make way for others whose ideas of professional conduct are higher and more in accordance with what the profession, as a body, think and uphold.

This little matter is coming before the public in the *Times*. All the time that it was believed that the leaders of the profession were loyal to it in their refusal to co-operate with homœopaths, it appears from one of these letters that a homœopath can say, "I myself was admitted to professional friendship by the leading physicians and surgeons of London." Who, in the name of wonder, are these "leading" personages who practise the conduct complained of by the *Lancet*? There must be men in positions of eminence whose conduct is in private very different and opposed to what is publicly believed of them. It is only too painfully clear that there are men standing high in the profession who do not deserve the position they have acquired, or the confidence of the profession; and when an ex-President of the College and an actual President could advise Dr. Quain as they did, it is high time they gave place to men, men in every sense of the word, like Sir William Jenner, who will probably institute a very different and less undesirable state of affairs. Beyond the scandal which the present imbroglio is occasioning, there exists the serious difficulty of what is to be the rule of the profession about meeting homœopaths in consultation. From the exultant tone of the homœopathic writers to the *Times*, it is abundantly clear that they think the present difficulty is of decided advantage to them. They are not only exultant, but quite disposed to take the regular profession to task for their shortcomings and their rejection of the tenets of Hahnemann. They glory in the fact that "the great names of Risdon Bennett, Burrows, Watson, and Paget" approve of Dr. Quain meeting Dr. Kidd. A distinction, however, must be drawn between opinions given "before" and "after" the act, and the honored names of Sir Thomas Watson and Sir James Paget are dragged into the matter to support the cause in a manner which can only occasion deep regret in the minds of the regular members of the profession. I have long spoken out frankly that the position of medicine in England is unworthy of it; and though this has exposed me to hostile criticism on the part of one of our leading journals, which expressed its disapprobation of my letter, I venture to think recent events justify my expressions and vindicate what I have written. I have too much faith in humanity generally and in the profession in particular to believe that the present unsatisfactory state of matters can exist much longer.

J. MILNER FOTHERGILL.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA ACADEMY OF SURGERY.

STATED MEETING OF APRIL 4, 1881.

President, DR. S. D. GROSS, in the Chair.

DR. JOS. C. HUTCHISON, of Brooklyn, New York, was introduced by the President, and read a paper on

THE TREATMENT OF HIP-JOINT DISEASE BY THE PHYSIOLOGICAL METHOD OF EXTENSION. (See p. 481).

After the reading of the paper the author requested that the Fellows should freely criticise the points advanced.

Dr. W. H. Pancoast thought the weight of the limb would be insufficient extension for treatment of cases where continued tonic muscular contraction had set in. It would not prevent in the later stages that muscular contraction which causes dislocation upward of the femur by rupturing the softened capsular ligament. He had seen two cases where the physiological method did not seem to be advantageous in the second stage of coxalgia; indeed, he did not think that extension of any kind was here indicated, because the greater the pull the greater is the contraction and grinding together of the joint-surfaces pressing against the inflamed synovial membrane. *Rest* is the great principle of treatment, and hence in his experience in the advanced second stage he had to do tenotomy and myotomy in many cases in order to obtain rest, which Physick had insisted upon as the important factor in treatment. Pain is developed by the squeezing and rubbing of the inflamed synovial membrane of the bones, due to the muscular contraction about the joint. Any form of extension is good in the first stage to keep the joint at rest, but when the muscles become rigidly contracted and stronger than the weight, the strain is to be taken off by

myotomy and tenotomy. Counter-irritation by blistering or the hot iron is then often useful in addition to the constitutional treatment. After a time support by some of the mechanical means of extension to allow exercise is needed. *Rest* is the desideratum: mechanical appliances alone, which do not give rest but cause irritation, will not suffice.

Dr. S. W. Gross did not believe that the indications were fulfilled by the method suggested. Spasmodic contraction of the muscles which act upon the joint was not observed when the patient was awake or when the brain was on the alert to guard against it. Hence, if he were to employ the method during the day, he would keep up extension at night by the weight and pulley. Although fixation of the joint was of the first importance, it would not do to depend upon the efforts of nature, since the constant contractions of the muscles not only intensify the inflammation present in the synovial membrane, the investing cartilages, and bones which enter into the composition of the hip, but force the head of the femur into an unnatural condition. After the signs of acute inflammation had subsided, he would, therefore, permit the patient to go about on crutches in the manner advised by Dr. Hutchison, but he would fix and keep the joint at rest by the posterior splint of Agnew, which extends from the middle of the leg to the middle of the back.

Dr. D. Hayes Agnew said that some statements in the paper met with his heartiest assent, but that he must dissent from others. As to apparatus supposed to separate the joint-surfaces, he believed that such a separation was not possible while the patient was going about walking on the affected limb. Certainly it was impossible in healthy joints, and seemed scarcely possible even in diseased articulations with softened ligamentous connections and intracapsular effusions. Thus far he agreed with Dr. Hutchison. He did not assent to intrusting the fixation of the joint to nature's efforts. To obtain the full benefit of rest it was necessary to relieve the muscles from all contraction. Muscular tension involves vascular tension; it attracts an undue amount of blood to the diseased part, and, therefore, intensifies the inflammation. He believed in immobilizing the joint by a posterior splint somewhat similar to the one employed by Thomas, of Liverpool, at the same time placing a high shoe on the foot of the sound limb and allowing the patient to move about on crutches. Extension, save in exceptional cases, he had not found necessary. Only let the muscles be assured that the joint is securely fixed, and all spasm and pain will cease. On the day of the meeting he had seen a case of coxalgia in a little girl, who was suffering great pain, which, however, disappeared on grasping the limb and holding it perfectly quiet. Another objection which holds good against the physiological method of Dr. Hutchison is the liability of the patient to sustain damage in the joint, when not supported by a splint, from falls to which all children are much exposed.

Dr. De F. Willard had tested the method in many cases since the first publication of Dr. Hutchison's views, but, while highly approving of the general plan, had made a modification, which he believed was needed because but one indication was fulfilled,—*i.e.*, *extension*,—while *fixation* was also necessary. The remark that we simply put the joint in a state of rest and let nature cure was wise; but it did not seem judicious to compel the muscles to fix the joint when they could accomplish it only by forcing an inflamed caput against a sensitive acetabulum. Walking on crutches was necessarily accompanied by a decided hip-swing at each step. Fixation could be readily secured by a moulded pasteboard, plaster of Paris, silicate of sodium, felt, or leather splint, which must go up upon the thorax as far as the sixth dorsal vertebra, because no splint fixes the hip-joint which does not rest against the ribs. With such fixation and the elevated shoe Dr. Willard had obtained good results. In his experience extension by a weight and pulley at right angles was necessary in the acute inflammatory cases of hip-joint disease. The impossibility of sitting down while encased in the dressing referred to could be easily obviated by the use of the locking and unlocking splint described by Dr. Willard in the *Philadelphia Medical Times*, November 6, 1880, which allows fixity or motion at will.

Dr. W. W. Keen had repeatedly tried the method, and thought it was admirable as far as *extension* was concerned; but, as the muscles are attached at an acute angle to the bone, they can produce *fixation* only by driving the femur firmly up against the acetabulum. He therefore advocated with the high shoe and crutches the use of a splint for fixation. He had recently seen a case of spasm of the tensor vaginæ femoris and other hip-muscles, due to phimosis, which simulated hip-joint disease. The muscular spasm remained absolute even under ether. Circumcision was performed, and in two weeks the child was well. Dr. Keen had used the high shoe and crutches in knee and ankle cases with great benefit, and thought the method one of the most useful devices of recent times.

Dr. Addinell Hewson referred to an instance in which, shortly after the introduction of ether, he had employed etherization and straightened a hip-joint which was supposed to be permanently anchylosed. No after-suffering resulted, and the patient was well in three weeks, having been treated with N. R. Smith's anterior splint and then a high shoe on the well side and a crutch on the other side. At the present time, after the lapse of

many years (nearly thirty), the man does not even require a cane in walking.

In answer to a question of Dr. S. W. Gross, Dr. Hewson said that he did not in any way wish it inferred that *he* had anticipated Dr. Hutchison's method: on the contrary, *his* purpose in putting the high heel on the foot of the *well* side was merely to prevent any pressure on the lame joints, and not, as Dr. Hutchison's, to effect extension by the weight of the limb (one-fifth of that of the body) there. His selection of Prof. N. R. Smith's anterior splint was to secure the complete rest of all the muscles at the hip, as was claimed by the Professor in his first account of that splint then published.

Dr. R. J. Levis had adopted the method, but not in the early or acute stage. Then he employed extension, as in fracture of the thigh, by means of a weight and pulley; subsequently the patients were allowed to walk on crutches with the high sole on the sound side. All his cases did well. It had occurred to him to use a simpler method, and one by which more fixation of the hip could be obtained if necessary. A diagram drawn upon the blackboard represented his idea, which consisted in lifting the foot of the diseased side from the ground by flexing the knee and keeping it flexed by a silicate of sodium splint, or encasement, which after being cut open in front was removable and readily reapplied by bandaging or by lacing it up. The patient then walked upon crutches without the necessity of the awkward elevation of the well side by a thickened sole. The flexed position is maintained during the day when the patient is walking on the crutches, but removed at night, when a weight extension apparatus may, if necessary, be applied. This method he preferred, because more convenient and less troublesome to the patient than the original method. He had shown at a previous meeting of the Academy two patients under this method of treatment. If complete fixation of the hip is desired, the silicate splint can be carried up on the pelvis. If the weight of the limb is not sufficient to overcome muscular spasm, sheet lead can be fastened in the folds of the bandage near the knee. His experience taught him that fully developed coxalgia cases are cured only after thorough muscular fixation and plastic adhesion, and rarely with the final result of much true motion in the coxo-femoral articulation.

Dr. W. H. Pancoast thought the pelvic fixation spoken of by Dr. Levis, if the stiffened bandage is carried up as high as the thorax, an improvement over the mere flexing of the knee as shown in the case presented at the former meeting, to which reference has been made. Cases in his opinion can be cured without anchylosis. Rest is to be insisted upon, but it cannot be obtained by fixation alone or extension alone; they must be used together, so as to give ease and rest. He preferred the term *rest* to the terms fixation and extension as now usually employed by surgeons. *Rest* to the diseased joint to prevent pressure on the inflamed synovial membrane is what should be enunciated, and what is taught by the pathology. Any one of these mechanical appliances which will give rest is beneficial. When the appliance will not give rest, and hence instead of giving the patient ease causes suffering, it must be removed, and other means employed. In the advanced second stage of the disease, extension will not give rest to the contracted muscles. If the peri-articular muscles are rigid while the patient is etherized, tenotomy or myotomy must be performed. If they are not rigid, the joint will bear extension. Last year he had seen a case brought from Liverpool wearing Thomas's splint, and was obliged to exsect the head of the bone because the disease had advanced to the third stage, as there was so much caries of the joint, with so great a discharge of pus, and consequent exhaustion. If it had been properly treated with Thomas's splint, and positive rest given in the first stage, he thought it would have done well. In the second stage spasm grinds the synovial membrane between the joint-surfaces, and if rest by extension or in bed is not gained, then tenotomy and myotomy are required. Counter-irritation may be necessary. He had examined a number of cases of joint-disease, and had never seen cartilages ulcerated or inflamed. Fine ether and vermilion injection failed to show a drop of the red injection in them. After amputation in the the living subject, he had seen cartilage exposed to the air and irritating fluids, and yet no inflammation was seen nor shown by the appearance of any blood-vessels in the cartilage. The cartilage became softened and of a dirty appearance, losing its pearly color, and was absorbed by the pulpy synovial membrane, but there was no evidence of inflammation in the cartilage. Synovial membrane becomes inflamed and excessively sen-

sitive, but articular cartilage has no sensation of pain, and cannot become inflamed, but macerates and is absorbed by the absorbent vessels in the synovial membrane.

Dr. S. D. Gross was taught very early in life that rest was the feature in the treatment of all inflammations. He had always insisted in his own teaching that rest was essential in joint-inflammation, and he believed that as fixation and extension give rest they were proper terms to use. He would have liked to hear the pathology of hip-joint disease discussed,—whether it was due to a constitutional vice or to ordinary causes apart from such a vice,—whether it was in its etiology constitutional or traumatic. Twenty-three years ago he had published in the *North American Medico-Chirurgical Review* the account of five cases of dissection after death of cases suffering from coxalgia. In every instance the patient was found to be tuberculous. He believed in the propriety of using early in the disease the actual cautery, as in similar affections of the ankle, knee, or vertebræ. He was satisfied from long and ample experience that it was a most important agent for arresting the morbid action before it had made any serious inroads in the articular structures. Combined with absolute rest of the affected joint, it left nothing to be desired so far as local treatment is concerned.

Dr. S. W. Gross remarked that there was a difference in the inflammatory process as exhibited in vascular and non-vascular structures. Active proliferation of the cells is the criterion of inflammation, and the gentleman who had denied that cartilage ever inflamed had, in his opinion, given an accurate description of the naked-eye appearances of that process.

Dr. Joseph C. Hutchison, in closing the discussion, remarked that the extension, by stretching the limb, prevents the spasm, which occurs especially at night, though it may occur in the daytime if the patient sleeps. If the patient be laid upon his back with the spine resting on a flat table, and the surgeon attempt to straighten the thigh, the back curves upward, showing that the pelvis moves with the femur because the joint is fixed by the contracted muscles. During the second stage it will be found that in nine-tenths of the cases the pelvis moves with the limb. This shows that the joint is kept at rest by the muscles: hence there is no need of uncomfortable appliances to enforce rest. If splints are adjusted with the idea of keeping up some extension while motion at the joint may take place, it will be found on careful watching that the patient in walking gets motion at the sacro-iliac joint and not at the hip. Plaster of Paris and the other splints mentioned certainly would fix the joint, but the muscles do this anyhow. Thomas's splint fulfils this indication, but is unnecessary. He has removed such a splint, and the patient has been comfortable without it. In the method advocated to-night the patient can sit down or can defecate with much greater ease and comfort than when wearing any of these fixing splints. The child is happier on the crutches, and just as comfortable as when lying in bed with weight extension. The physiological method does not compel the muscles to fix the joint, because they do this without compulsion.

JOHN B. ROBERTS, M.D.,
Recorder.

REVIEWS AND BOOK NOTICES.

THE PRINCIPLES AND PRACTICE OF SURGERY. By D. HAYES AGNEW, M.D., LL.D., Professor of Surgery in the Medical Department of the University of Pennsylvania. Vol. II. Philadelphia, J. B. Lippincott & Co., 1881.

Vol. I. of Dr. Agnew's work has been so long and so favorably known to the profession that any general introduction of the volume under consideration is unnecessary. The very flattering commendations of the medical press at home and abroad, the frequent references in surgical literature to the book and to the teachings of the author, and, above all, the practical test of daily consultation, which has demonstrated its value to those who possess it, have sufficed to establish the work as one of the few great recognized guides and authorities in surgical practice, and have rendered the advent of the second portion an occurrence of importance to the profession.

This volume contains thirteen chapters, beginning with a very exhaustive one upon the subject of *Dislocations*. The instructive plan has been followed here, wherever possible, of placing side by side illustrations representing, on the one hand, the anatomical position and relations of the displaced bone, on the other the resulting deformity. Especial attention is paid to the principles of surgical mechanics involved in the production of luxations and in the retention of the bone in its abnormal situation. The explanations of the manipulations employed in reduction are admirable in their clearness and their fulness of anatomical knowledge. In the reduction of recent luxations of the humerus where manipulation has failed, Dr. Agnew prefers the method of La Mothe,—*i.e.*, with the arm parallel with the side of the head and face. A table of anomalous dislocations of the femur is given, presenting in a concise form most of the recorded cases of supra- and infra-cotyloid and perineal luxations; also a table of the recorded cases of dislocations of the fourth, fifth, and sixth cervical vertebræ is given. The most important article in this chapter is, perhaps, that upon luxations of the hip, which are discussed at considerable length, the various positions of the head of the femur, the characteristic deformities, and

the different forms of apparatus employed in reduction being abundantly illustrated.

The following chapter is upon *Diseases of the Joints*, first treating of general conditions, as synovitis, anchylosis, strumous arthritis, etc., and then of diseases of special joints. Naturally the article on Coxalgia here predominates, and we would recommend it to critical readers as an illustration of the care and thoroughness with which the book has been written, and also of the happy combination of independence with conservatism which may be said to characterize the teachings and practice of the author. Here, as elsewhere, the phenomena of the disease are not merely enumerated, but are carefully explained, so that their remembrance by the student or practitioner becomes not an act of memorizing, but a rational association of cause and effect, of pathology and symptoms. Numerous tables are given enabling the reader to see at a glance the points of diagnostic difference between coxalgia and psoas abscess, Pott's disease, rheumatism, luxations, sacro-iliac disease, etc.

In regard to the very important and somewhat disputed point of the employment of splints in the treatment of this affection, the author thus unequivocally states his views: "I believe that the various mechanical appliances designed to combine extension with motion are in most instances highly prejudicial, tending to perpetuate inflammation and to favor suppuration, and thus either to prevent resolution of the arthritis or to delay anchylosis where that termination is inevitable. All the so-called walking splints, which allow the weight of the patient to rest on the affected limb, not only do not, in my judgment, fulfil the indications required in the treatment of coxalgia, but are at variance with all the principles involved in the management of the inflammation." The author protests against the extreme views which on the one hand deny the existence of strumous or scrofulous diseases of joints and refer all such cases to traumatic causes, or, on the other, affirm that in children such diseases invariably arise from diatheses of this nature. He believes that both causes are operative, the constitutional condition when present constituting a powerful predisposing element. Tables contrasting the differential symptoms of arthritis and pseudarthritis, hip and knee-joint disease, sciatica, spine disease, rheumatoid and strumous arthritis, are also given; and the description of the pathology and treatment of these ailments is most complete and accurate.

Excisions and *amputations* are next considered, and it is safe to say are nowhere better described, in some respects—especially in the fulness of the surgical anatomy and its application to practice—being superior to anything with which we are familiar in other systematic works on surgery. The illustrations here are profuse and uniformly good. Throughout this portion of the book the results of recorded cases are given with great care, and the average mortality invariably stated, that it may serve as a guide in the selection of an operation. The statistics of amputations are made up from a table of about fourteen thousand major operations, affording a far more extended basis for deductions than any hitherto compiled. The author's modification of the musculo-tegumentary method of amputation, described by him some years ago in the *Times*, is here given, with an illustrative cut which is perhaps the least instructive in this section. The article on *general considerations in regard to operations*, that on *accidents during and after operations*, and that on *complications following amputation* are worthy of careful perusal by every one engaged in surgical practice, as containing advice on many usually neglected points and embodying the results of years of large experience and careful observation. The chapter on *Anæsthetics* contains some very interesting sphygmographic tracings showing the relative influence of ether and of chloroform upon the heart. After mentioning the large number of recorded deaths from chloroform—which the author's researches have shown to be almost four hundred—and comparing them with the three doubtful cases of death from ether, he adds, "It seems to me that a surgeon who, in the face of such evidence, will continue to employ chloroform, assumes a tremendous responsibility. I hold that where two agents are open to choice, both capable of suspending sensibility and voluntary motion, we are bound, in justice to our patients, to select the safer. No man has any right to jeopardize unnecessarily the life of a fellow-being. Chloroform, except in the few cases where ether fails to produce decided anæsthesia, should be banished from surgical practice."

Shock, *Traumatic Fever*, *Burns*, *Erysipelas*, *Furuncle*, are all treated of carefully and with originality. In regard to the traditional treatment of carbuncle by the crucial incision, he states that for eighteen years he has rarely found it necessary to employ it, and believes that, as a rule, it neither hastens the cure nor lessens the suffering. To those surgeons who have witnessed the pain, the shock, and sometimes the serious hemorrhage which follow this operation, his dictum will not be unwelcome. The chapter on *Injuries and Diseases of the Genito-Urinary Organs* follows, and is very comprehensive, occupying three hundred pages of the volume, being indeed almost a treatise in itself. Cancer and fracture of the penis, wounds and lacerations of the urethra, urethral fever (which he believes to be a form of traumatic or surgical fever), urethral fistula, foreign bodies in the urethra (treated of with unusual fulness), gonorrhœa, with its sequelæ, diseases of the prostate

(a most instructive article), cystitis, hæmaturia, urinary incontinence, catheterism, varicocele, hydrocele, orchitis, spermatorrhœa, sterility, impotence, cancer of the kidney, and many lesser articles, make up this section, the many excellences of which want of space forbids us even to mention. We would, however, call especial attention to the articles on Vesical Calculus and on Urethral Stricture. In the diagnosis of the latter complaint, bulbous bougies are recommended as the best exploratory instruments, and steel bougies for the subsequent dilatation, which, it is most properly taught, should be always the first employed method of treatment. Failing in this, the author advises incision or internal urethrotomy, followed by dilatation. "The radical cure of stricture," he says, "I believe to be entirely beyond the reach of surgery, notwithstanding the immense and varied resources at her command."

After an elaborate study of the methods and results of removing stone from the bladder, he sums up his conclusions as follows:

1st. All cases of calculus occurring in infancy and childhood should be lithotomized. 2d. All cases occurring in adults in which the stone is soft, and not too large, should be treated by lithotrity. 3d. Even cases of hard stones, consisting chiefly of oxalate of lime (provided the concretion is small), and especially if there is any evidence of the existence of renal disease, should be treated by lithotrity. 4th, All cases not included in the above category are proper subjects for lithotomy. The particular method of the operation is to be determined by the magnitude of the calculus. 5th. Calculous patients suffering from serious structural disease of the kidneys are unsuited for either lithotomy or lithotrity, and should be content with "palliative treatment." A similar summary is given of the subject of stone in the female. The following quotation indicates the author's customary judicial frame of mind, even where he himself is concerned:

"It is very unwise for a surgeon to become too much elated by a long run of success. For several years—one year seven times—I cut patients for stone without the loss of a single case, when I became disposed to criticise the average mortality of the operation; but immediately afterwards I lost three cases in rapid succession."

He believes that the highest success would be obtained in lithotomy if the median operation were selected for small calculi, the lateral for stones of medium size, the bilateral for stones above the medium size, and the suprapubic for such as are of great magnitude.

A table of twenty-nine cases of nephrotomy shows fifty per cent. of recoveries,—a rather surprising result, when the gravity of the operation is considered.

The chapter on *Surgical Diseases of Women* embodies his well-known views on the treatment of vesico-vaginal fistula, and contains articles upon malposition and flexions of the uterus; dysmenorrhœa; uterine tumors; carcinoma; extirpation of the uterus; ovaritis; pelvic cellulitis; extra-uterine pregnancy; rupture of the uterus, and Cæsarean section. The author gives minute directions for the diagnosis and treatment of ovarian tumors; regarding the existence of the "ovarian cell" as yet undemonstrated; asserting that the tapping of such tumors, though rarely producing a permanent cure, is yet a harmless operation if properly performed; preferring the clamp for a long pedicle, the cautery or the carbolized ligature for a short one; and giving a table containing an analysis of 5153 cases of ovariotomy collected for this work. A table of 107 cases of Battey's operation is also given. In the chapter on *Surgical Diseases of the Spinal Region* the most important articles are those on lateral curvature and on Pott's disease. The treatment of the latter affection is most elaborately considered, and the various splints described. The felt splint the author has tried and disapproves of; and although in speaking of the plaster splint he pays a deserved tribute to Prof. Sayre, in saying that for its discovery "humanity owes him a debt of everlasting gratitude," yet he prefers a jacket made of leather and stiffened by thin strips of steel, a dressing which is lighter and far more durable.

The volume is concluded with a chapter on *Diseases of the Mouth*, which is in no respect inferior to the general standard of the work, and is quite sufficient in itself, without being supplemented by monographs, to serve as a guide upon these subjects to the working practitioner. It includes, somewhat comprehensively as regards its title, articles on glossitis, lingual tumors and cancers, caries of the teeth, odontalgia, dentigerous cysts (with a table of 36 cases), caries, necrosis, and tumors of the lower jaw, affections of the antrum, cleft palate, diseases of the tonsils, pharyngeal abscess, wounds and growths of the œsophagus, œsophagotomy (with a table of 36 cases), and directions for the evacuation of the stomach in emergencies.

The illustrations, which amount in the two volumes to nearly seventeen hundred, are excellent, often entirely new, and always selected with judgment. The index is unusually full and accurate, and the typography and general appearance of the volume are very creditable to the publishers.

It may be pardonable to say, in conclusion, that no one not personally acquainted with the author and with the harassing and incessant professional demands upon his time can conceive of the difficulties under which this work has been composed. That Dr. Agnew has been able, under these circumstances, to produce a book so comprehensive in its scope, so thorough in its details, so clearly expounding the principles of surgical science, and at the same time summarizing and recording

the results of an immense personal experience, is in the highest degree creditable to him, both as author and teacher.

No practitioner who needs—as who does not?—a conscientious and intelligent guide in emergencies or in difficult, obscure cases, or who wants a safe and reliable counsellor in the routine of daily practice, can afford to be without this latest and best production of American surgery. J. W. W.

SYPHILIS AND MARRIAGE. By ALFRED FOURNIER, Professeur à la Faculté de Médecine de Paris, etc. Translated by P. ALBERT MORROW, M.D. New York, D. Appleton & Co., 1881.

No question of more importance to the community presents itself to the thoughtful physician than that of the relations of syphilis to the public health, and no graver mistakes are committed in the practice of medicine than those of the untaught or misguided practitioner who undertakes to give advice upon the vital, yet delicate, question of the matrimonial relations of the syphilitic.

M. Fournier's eminence and great experience are sufficient *a priori* grounds for believing his book to be entitled to careful consideration; and a perusal serves to confirm this view. He has presented in a condensed but readable form the result of the acute and philosophic observation of a large number of cases, illustrating in detail, when necessary, and formulating his conclusions here and there throughout the book in terse and weighty sentences.

The book is divided into two main sections,—the first devoted to the period before marriage, when it becomes the physician's duty to determine whether or not marriage is at all permissible, and, if so, to fix the date; the second, considering the means of arresting or lessening the dangers produced by the marriage of syphilitics when that has already taken place without medical advice or in defiance of it.

The materials for producing such a work do not exist in this country, and could hardly have been obtained outside of the special hospitals of Paris, which have afforded the author a field which he has cultivated with rare originality. Syphilis by conception, by paternal or maternal heredity, time of specific treatment, personal dangers of the husband, dangers to society, social prophylaxis, are subjects the enumeration of which is sufficient to show the scope and interest of this interesting and valuable work, which removes a long-felt deficiency in medical literature. J. W. W.

STUDENTS' AIDS SERIES. G. P. Putnam's Sons. Part I.—SEMEIOLOGY. By J. MILNER FOTHERGILL.

An historian of our time has said, "The knowledge which a man can use is the only real knowledge,—the only knowledge which possesses growth and vitality, and converts itself into practical power. The rest hangs like dust about the brain, or dries like raindrops off the stones." So able an exponent of semeiology as the author could only dispense crumbs of golden thought; but our comment is that the fragments are too small to be of much practical utility. It is impossible to put some subjects in a nutshell.

The companion work, "Aids to Physical Diagnosis," by J. C. Thorowgood, is excellent, so far as the limit of sixty small pages will permit, and we like it better than many more pretentious works. E. T. B.

GLEANINGS FROM EXCHANGES.

THE CAUSES OF PRURITUS VULVÆ.—In a clinical lecture on this subject (*British Medical Journal*, vol. i., 1881, p. 327) Dr. Wiltshire mentions the animal and vegetable parasites as frequent local causes of this condition. Ascarides, pediculi, and acari are among the former, and certain low forms of vegetable life, as thrush fungus (*oïdium albicans*), among the latter. Among other local causes we have—1, diseases of the vulva (as vulvitis, abscess, carcinoma, oozing tumor, lupus, elephantiasis, etc.); 2, diseases of the urinary system (urethra, bladder, and kidneys); 3, vaginitis (gonorrhœal and other); 4, diseases of the uterus (metritis, endometritis, senile catarrh, cancer, fibroids, polypi, acrid discharges arising from the foregoing or occurring mainly in association with menstruation); 5, skin affections (eczema, ecthyma, herpes, urticaria, acne, etc.). As regards the latter, eczema may be associated with diabetes, producing terrible suffering, while urticaria suggests ovarian disease. Ecthymatous spots with ashen-gray bases may indicate grave cachexy (syphilitic?), while the herpetic vesicles are prone to crop out periodically in females of gouty parentage just before each menstrual period. A pustular form of acne is sometimes accompanied by troublesome itching. Venereal warts may excite itching.

Malignant disease of the uterus and upper part of the vagina may provoke itching in two ways: first, by acrid discharges; and secondly, reflexly,—the latter uncommonly. The same may be said of fibroids, polypi, sarcomata, etc. Dr. Wiltshire has known pruritus to exist for a long time apparently as a consequence of pelvic effusions, *e.g.*, hæmatocele, cellulitis, partly, perhaps, from venous obstruction and partly from implication of nervous structures. Some discharges from the womb are virulently acrid, and excite excoriation of the parts over which they flow. These are revealed by the speculum. Urethral and vesical affections—*e.g.*, vascular growths, stone, incontinence, etc.—are sometimes complicated by vulvar itching. Careful local investigation is therefore necessary; for, even when some general condition, as

diabetes, is present, the local condition may give valuable information.

Among general causes we find diabetes, pregnancy, gout (or lithiasis), syphilis, and pruritus senilis. Diabetes is not an uncommon cause, and vulvar pruritus may be one of the first symptoms which lead to its detection. Pregnant women are liable to a severe form of pruritus vulvæ, accompanied usually by an abundant creamy discharge. Sometimes aphthæ or erosions are seen upon the turgid labia or cervix, or there may be vaginitis granulosa. Most of the cases which Dr. Wiltshire has seen have been accompanied by extreme venous turgescence. Gouty pruritus is apt to be brought on by indulgence at the table or any diet which increases the deposit of lithates in the urine. Chancres and venereal warts (which last Dr. W. apparently considers syphilitic.—ED.) may provoke irritation. Pruritus senilis is often associated with general cutaneous hyperæsthesia. Klob says there are little elevations of the skin, like goose-flesh, consisting of growths analogous to tubercular formations, and giving rise to violent itching. These cases are grave. Some are amenable to the bromides used locally as well as internally. Arsenic and cod-liver oil are also indicated.

All forms of pruritus vulvæ are subject to periodical exacerbation. Some patients suffer only at night, after becoming warm in bed, experiencing comparative freedom during the day. All who menstruate are conscious of aggravation at that time. Stimulants, as a rule, exert an injurious effect. Sedentary occupations, piles, and hepatic disorders aggravate pruritus.

THE TREATMENT OF PRURITUS VULVÆ.—In a clinical lecture on the subject of vulvar pruritus, part of which we give above, Dr. Wiltshire (*Brit. Med. Jour.*, vol. i., 1881, p. 328) says that the first thing is to find, if possible, the cause. Extreme cleanliness must be enjoined. Demulcent washes are better than soap, unless carbolic or coal-tar soap be used; and usually even these are inadmissible. Almond meal, strong bran-water, decoction of rice, marsh-mallow, slippery elm, or fine oat-meal are suitable, especially the first, which, if pure, yields during use a marked odor of hydrocyanic acid and appears to soothe materially. When the pruritus is due to animal parasites, ointment of white precipitate, sulphur, or stavesacre speedily cures by destroying the insects and their ova. If nits persist about the pubic hairs, a lotion containing bichloride of mercury and acetic acid will dissolve them. Ascarides are destroyed by a carbolic lotion (1 to 60): general treatment, however, should be used, as iron, quinine, cod-liver oil, together with enemata of hamamelis, lime-water, iron, etc.

The vegetable parasites are treated by washes of borax, boracic acid, sulphurous acid, etc. Parasiticide lotions are certainly the most useful in the majority of cases, which points towards vegetable organisms as the commonest cause of the pruritus. The borax lotion should be of the strength of a drachm to five ounces of warm water, or stronger. Hydrocyanic acid, say ℥j of the dilute acid to water ℥x, or morphia (2 gr.), atropia (½ gr.), aconitia (½ gr.), or veratria (½ gr.) to the same amount. Infusion of tobacco (half an ounce to the pint) alone relieves some cases, and forms a good vehicle for borax or boracic acid. It is not well to use glycerin with the borax, as a rule, as it is apt, owing to its affinity for water, to aggravate the irritation. Strong solution of poppy is a good vehicle for borax. Chloral frequently does not suit. Ice suits some, very hot water others. In some cases ether spray might be tried. Ointments, if used, should be of non-rancid fats or vaseline. Two drachms of iodine (tincture?) in two ounces of elder-flower water sometimes answers. Electricity may afford relief in neurosal cases. Probably faradism would be the preferable form.

In simple vulvitis borax or carbolic-acid lotions relieve. An ointment of calomel or bismuth is also good. Malignant affections of the parts call for ablation, but where this is not practicable sedative applications (conium, opium, belladonna) alone are often all that we can employ.

Of course urethral caruncles, urethritis, vaginitis, etc., should receive thorough treatment. When there is congestion with loading of the portal circulation, a mercurial and saline purge is helpful. When eczema with fissure is present, a poultice made of the clot formed by adding two drachms of lead-water to ten ounces of new milk is most useful. Diabetes must of course be combated, and frequent ablutions with borax washes form a good local treatment. In wakefulness from diabetic pruritus, codeia in one-grain doses in pill is often useful. The bromides are also useful.

Pregnant women often suffer terribly. When *oïdium albicans* is present, sulphurous acid gives relief. A tablespoonful should be freshly mixed with half a pint of warm water, barley-water, or almond emulsion for each application. Chloroform locally, in liniment, ointment, lotion, or vapor, answers well occasionally; bichloride of mercury, gr. i–v, ad ℥viij mist. amygdalæ, gives relief in some cases. It should not be used when there is abrasion. Section of the pudic nerve has been suggested in desperate cases, but has never been practised.

MICRO-ORGANISMS IN SURGICAL DISEASES.—Dr. Alexander Ogston presents an elaborate report on this subject to the Scientific Grants Committee of the British Medical Association (*Brit. Med. Jour.*, vol. i., 1881, p. 369), in which he reaches the following conclusions. The organism most closely examined was the micrococcus, though others also are figured in

the drawings accompanying the report. In inflammation the results are summed up as follows. Cold abscesses contain no micro-organisms, and their pus is harmless. Acute and pyæmic abscesses always contain micrococci. Pus whose micrococci are killed by carbolic acid or high temperatures is harmless. Pus containing micrococci is resisted by animals if the dose be minute or if it be injected into the peritoneal cavity. Doses of one or two minims injected into the subcutaneous tissue may cause death by blood-poisoning, or may cause sphacelus of the site of injection, or may be resisted by an unusually insusceptible animal. As a general rule, such doses produce acute inflammation, accompanied by blood-poisoning and ending in abscess.

The results of observations on wounds and suppurations other than abscess are thus summed up by Dr. Ogston. Suppurating wounds contain micrococci, whose numbers and activity are proportionate to the intensity of the suppuration. Listerian dressings prevent micro-organisms from gaining access to wounds. Micrococci in wounds withstand most antiseptic applications. Where no micrococci are present in wounds, no pus is produced; the discharge is serous. Micrococci exist wherever pus occurs, save in chronic suppurations, such as cold abscess, chronic acne vulgaris (?), etc. Micrococci in man produce the same varying effects as in animals: they may produce blood-poisoning without suppuration; they may cause suppuration; or they may be resisted by strong individuals under favoring circumstances. Lastly, there are, possibly, micrococci which do not produce suppuration.

Cultivation experiments showed that micrococci do not produce putrefaction. They develop best when removed from the atmosphere. The facts adduced by Dr. Ogston prove that micrococci are able under suitable conditions to give rise to blood-poisoning, to acute inflammation, and to suppuration. Dr. Ogston adds, in conclusion, that it is not intended to be conveyed by anything which he has said that micrococcus is the only organism which produces inflammation and blood-poisoning. The other organisms are to be investigated in their turn, and much yet remains to be done, for the subject is only in its infancy.

MISCELLANY.

A BOLD PIRACY.—The following letter appeared in the *New York Medical Record* for April 2:

"Dr. Fancourt Barnes, M.R.C.P., Physician to several lying-in hospitals of London, has recently issued a 'German-English Medical Dictionary,' which has been imported and is offered for sale by Blakiston, of Philadelphia.

"After a careful examination I find that Dr. Barnes has copied nearly every one of my words, with their definitions; the latter in the same sequence and with the same punctuation. The few typographical and other errors which escaped correction in the first edition and remained in my plates have, in nearly every instance, been so faithfully copied as to appear ludicrous, were it not for the fact that this alone affords sufficient proof of a shameless piracy. In reading German it is necessary to know the genitive as well as the plural termination of the noun, and a verb may have an entirely different signification according to the auxiliary used. These I have given, but Dr. Barnes has erased them; occasionally he has neglected to do so, and then they have been copied by his printer. Dr. Barnes must have corrected his proof very carelessly, or he would have detected these inconsistencies, as well as many errors in spelling, misplaced and omitted *umlauts*, etc., not contained in my dictionary, and which must prove very confusing to the student. The Latin word for *or* is often used in my definitions. Dr. Barnes attempted to suppress this resemblance by substituting a comma for this word; his frequent failure to do so is significant. In the definitions where I have accidentally omitted a comma, where a semicolon has been wrongly used, where words closely related are separated by others which should appear earlier or later, etc., Dr. Barnes has carefully followed suit. In short, there is not a page in his book which does not reveal the fact that he has stolen my whole work, adding a very few medical words and a number of chemical and zoological terms which may be found in the ordinary German dictionaries. I do not find more than a score of my words omitted, and the two books contain the same number of pages.

"As stated in my preface, my dictionary is an original work, the result of many years of industrious research. The sale of such a book is necessarily limited; nevertheless I hoped soon to be able to issue a revised edition, containing several thousand more words. Though Dr. Barnes's book has not facilitated the reading of German medical writings, he has—unless discountenanced by the press and by the profession, as I have every reason to expect he will be—rendered my new edition impossible for many years. Respectfully,

"G. R. CUTTER, M.D.

"312 SECOND AVE., NEW YORK, March 2, 1881."

A CURIOUS CASE OF ASSAULT AND BATTERY BY A PHYSICIAN.—The case of Latter *vs.* Braddell and wife and Sutliffe has attracted some attention in English medical circles of late, and is worthy of note. The case was an action for "assault and battery," brought by a young woman, a domestic servant, against her master and mistress. The mistress, suspecting that her servant was *enceinte*, had subjected her against her will to ex-

amination by Mr. Sutliffe, a medical man, who was joined as a co-defendant in the action. The case was tried before several judges in succession, these "doctors," as is usual, disagreeing. The court of final appeal decided in favor of the defendants; but the case is a warning to medical men that they should be sure of the consent of their patients before proceeding to examine them at the request of a third party.

WHEN DOES THE DANGER OF INFECTION IN SCARLATINA CEASE?—Mr. John Simon (*Lancet*, vol. i., 1881, p. 146) says, "It is believed that the dispersion of contagious dust from the patient's skin is impeded by keeping his entire body (including limbs and head and face) constantly anointed with oil or other grease, and some practitioners also believe this treatment to be of advantage to the patient himself. When the patient's convalescence is complete, the final disinfection of his surface should be effected by warm baths (with abundant soap) taken on three or four successive days, till no trace of roughness of the skin remains. Not until this has been done, nor without the greatest care that the clothes are clean and free from infection, should the patient, however slight may have been the attack, be allowed to associate with persons susceptible of scarlatina."

A NEW instrument for the application of cotton to the larynx, os uteri, etc., has been devised, consisting of a stout probe nine inches long, terminating at one end in two sharp spirally-twisted prongs. The cotton is twisted into these, and if to be left in the cavity can be detached by a reverse movement.

ANOTHER VICTIM TO TOBACCO.—A medical exchange states that Melohiah, a Choctaw princess, died at Hoyt City, in the Indian Territory, the other day, at the great age of one hundred and fourteen years. She had thirteen great-great-grandchildren. She had been addicted to the inordinate use of tobacco for one hundred and five years.

NOTES AND QUERIES.

THE NEW YORK MEDICAL JOURNAL,
OFFICE OF THE EDITOR,
33 EAST 28TH STREET,
NEW YORK, May 1, 1881.

HORATIO C. WOOD, M.D.,
Editor of the *Philadelphia Medical Times:*

DEAR DOCTOR,—In the *Times* for April 23, 1881, I notice an abstract of Dr. W. C. Ayres's article on "Permanent Pictures on the Retina" credited to the *Medical Record*. The article really appeared in this *Journal*.

Yours very respectfully,
FRANK P. FOSTER.

EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SIR,—In the report of my paper read before the Philadelphia County Medical Society that appeared in your issue of February 26 the word *card*-board appears as the substance from which the support is made. In answer to numerous inquiries, I desire to state that *tar*-board is what was suggested. It is in every way superior, dries hard, and retains the form well. It can be obtained from wholesale paper-houses.

Yours truly,
J. M. KEATING.

April 28, 1881.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM APRIL 17 TO APRIL 30, 1881.

SURGEONS J. H. JANEWAY and J. S. BILLINGS.—Directed to represent the Medical Department of the Army at the annual meeting of the American Medical Association to be held in Richmond, Va., on May 3, 1881. S. O. 96, A. G. O., April 27, 1881.

BACHE, D., MAJOR AND SURGEON.—Granted leave of absence for one month on Surgeon's certificate of disability, to take effect as soon as a medical officer reports for duty at Benicia Arsenal and Barracks. S. O. 62, Division of the Pacific and Department of California, April 16, 1881.

GREENLEAF, CHARLES R., MAJOR AND SURGEON.—To report to Superintendent-General, Recruiting Service, to conduct a detachment of recruits to Department of Dakota, and, on completion of this duty, to join his station (Fort Shaw, Montana Territory). S. O. 95, A. G. O., April 26, 1881.

MCCLELLAN, ELY, MAJOR AND SURGEON.—When relieved by Assistant-Surgeon Ebert, to repair to these Headquarters for assignment to duty. S. O. 44, Department of the Columbia, April 5, 1881.

BARTHOLF, JOHN H., CAPTAIN AND ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Spencer, to proceed to Fort Lapwai, Idaho, and report for assignment as medical officer of that post, relieving Assistant-Surgeon Ebert. S. O. 44, c. s., Department of the Columbia.

CRONKHITE, H. M., CAPTAIN AND ASSISTANT-SURGEON.—To proceed from Camp Sheridan to Fort McKinney, Wy., and report for duty at that post. Camp Sheridan to be discontinued May 1, 1881. G. O. 8, Department of the Platte, April 20, 1881.

HEIZMANN, CHARLES L., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Vancouver Barracks, and assigned to duty as Post-Surgeon at Fort Townsend, W.T. S. O. 44, c. s., Department of the Columbia.

AINSWORTH, F. C., CAPTAIN AND ASSISTANT-SURGEON.—Having reported at these Headquarters, will report to the Commanding Officer, Post of San Antonio, Tex., for temporary duty. S. O. 56, Department of Texas, April 11, 1881.

SPENCER, WILLIAM G., CAPTAIN AND ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Heizmann, to proceed to Fort Cœur d'Alene, Idaho, and report for assignment as Medical Officer of that post. S. O. 44, c. s., Department of the Columbia.

BIART, V., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—So much of par. 1, S. O. 205, September 24, 1880, from A. G. O., as relates to him is revoked. S. O. 94, A. G. O., April 25, 1881.

EBERT, R. G., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Instructions by telegraph of this date to proceed to Fort Lapwai, Idaho, and relieve Surgeon McClellan as Medical Officer of that post, temporarily, confirmed. When relieved by Assistant-Surgeon Bartholf, to rejoin proper station, Fort Walla Walla, W. T. S. O. 44, c. s., Department of the Columbia.

ARTHUR, WILLIAM H., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—To report in person to the Commanding Officer, Fort Sanders, Wy.T., for duty. S. O. 31, Department of the Platte, April 16, 1881.

BUSHNELL, G. E., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Fort Yates, D.T. S. O. 61, Department of Dakota, April 11, 1881.

WYETH, M. C., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Fort Meade, Dakota. S. O. 61, Department of Dakota, April 11, 1881.